Analysis of non-performing loans in the Libyan state-owned commercial banks: perception analysis of the reasons and potential methods for treatment.

Gabgub, Aburawi Issa

ANALYSIS OF NON-PERFORMING LOANS IN THE LIBYAN STATE-OWNED COMMERCIAL BANKS: PERCEPTION ANALYSIS OF THE REASONS AND POTENTIAL METHODS FOR TREATMENT

By
ABURAWI ISSA GABGUB

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ABSTRACT

Granting loans and credit facilities is considered as the main function of commercial banks in terms of providing liquidity to their clients on one hand, and achieving a sufficient profit for themselves on the other. In the credit facilities offered by the banks, when clients fail to pay their obligations, banks are exposed to non-performing loans. Similar to any other financial system, Libyan financial the questionnaires' respondents system is also faced with non-performing loans in particular in the Libyan state-owned commercial banking sector. This study, hence, aims to identify the non-performing loans in the Libyan stated owned commercial banking but also aims to determine the main types of loans and the reasons which led to non-performing loans in the Libyan state-owned commercial banks. In addition, this study aims to locate the appropriate ways which may be used to treat non-performing loans in the Libyan state-owned commercial banks. These aims are fulfilled through the perceptions and opinions of staff working in various levels in Libyan state-owned commercial banks.

In order to obtain sufficient data, this study utilised both qualitative and quantitative methods of collecting primary data from the samples groups who participated in this study in the form of questionnaire and interview. The questionnaires were distributed to the staff working in the credit section of the Libyan state-owned commercial banks to collect the necessary data in order to conduct a quantitative analysis. In addition, the semi-structure interviews were conducted with managers of the credit departments of the Libyan state-owned commercial banks to collect data necessary for holding a qualitative analysis.

This study shows that there are similarities in findings (in terms of perceptions and opinions) obtained from analyzing the questionnaires and the interviewees. In identifying the types of loans that led to non-performing loans in the Libyan state-owned commercial banks, the respondents and interviewees agreed that loans and credit facilities granted to individuals, public institutions and nationalised sectors led to non-performing loans in the Libyan state-owned commercial banks. However, they ruled out the loans granted to the foreign companies as a source of non-performing loans. On the other hand, this study shows that the questionnaire respondents and the interviewees agreed that the reasons related to the credit facilitation process of banks, collaterals, borrower and the internal conditions caused non-performing loans in the Libyan state-owned commercial banking sector. However, they ruled out the international conditions-related reasons. In terms of determining the appropriate ways of treating non-performing loans in the Libyan state-owned commercial banks, this study revealed that the respondents and the interviewees agreed using the methods of additional client support and the establishment of an institution specialising in purchasing the non-performing loans. However, participants mostly disagreed to writing-off these types of loans.

DEDICATION

I am proud to dedicate this thesis to all of who helped me to achieve my goal

(PARENTS, BROTHERS, SISTERS, WIFE, AND CHILDREN)

My beloved parents

With their love, care and prays

My dearest brothers and sisters

With their unlimited supports and encouragements

My beloved wife

With her unlimited supports in terms of taking care of our family and her encouragements during the period of my study

My beloved children

Ghilas, Redan, Jana and Meral who suffered as a result of have not spend a sufficient time with them during the period of my research study

DECLARATION

I hereby declare that no portion of the work that appears in this study has been used in support of an application of another degree in qualification to this or any other university or institution of learning.

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INTRODUCTION

1.1. INTRODUCTION

The importance of financial institutions in the economic growth and development of countries is examined in detail within the literature. Ample literature is available on the impact of financial developments and economic growth, such as Creane *et al.* (2007); Berger *et al.* (2004); LEVINE (1997) and Jung (1986) demonstrate this positive correlation. However, it is also important that these institutions should be functioning efficiently in order to produce the appropriate financial environment for economic growth, as efficient functioning institutions including financial institutions are the backbone of a robust economy and polity.

Among financial institutions, commercial banks in particular play an important role in pooling the savings from the economy and injecting them back into the economy for investment purposes. Due to direct engagement of the commercial banks with the daily running of the economy, it is essential that these financial institutions must be efficient in the role of being the intermediary institutions between the savers and investors. In other words, they should function in an efficient manner in order to serve to the development of the economy.

The recent financial crisis is an important indicator of the failure of the financial system but also of the commercial banking system, as the main source of the financial crisis has been the subprime mortgage market in the USA. Thus, the devastating impact of the current financial crisis is a vindication of the necessity of an efficient and robust banking and financial sector.

While the current financial crisis can be seen in the failure of commercial banks mainly due to the institutional and individual non-performing loans, such failures can emerge from other socio-economic and political factors. In particular, transparency, corporate governance, and accountability issues are major concerns regarding the efficient functioning of the financial institutions. In addition, in particular in developing countries, the large role of public sector in the economy and the financial sector, resulting in the state owned commercial banks failing within the system as financial decisions are impacted by political priorities. Corruption and nepotism in the functioning of these organisations can be an important issue within less-developed or democraticised countries. Indeed, financial liberalisation in recent years in developing countries has helped reduce the impact of political decision-making on the functioning of these institutions and also in the reduction of non-performing loans.

This study, hence, is an attempt to discuss various aspects of non-performing loans in Libyan state owned commercial banking. However, before delving into details of the research, the following section provides further contextualisation of the study by providing an introduction to the study in terms of financial institutions and non-performing loans.

Financial institutions are now considered as the backbone of development of any nation and community by serving as financial intermediaries between savers and investors. Financial institutions are those economic establishments which specialise in funds' management. In addition, financial institutions take the form of banks, saving funds, insurance companies and stock exchanges (Saunders and Cornett 2008). Therefore, the financial sector is considered to be the most important sector of the national economy, serving all the parts of society either directly and/or indirectly through the tasks and functions carried out by several financial institutions. Thus, communities and nations have initiated strategies to develop the financial sector in order to obtain a good level of financial services leading to economic growth.

Greenbaum and Thakor (2007) state that commercial banks are considered the largest amongst to the depository institutions. Therefore, the commercial banking sector is considered the most important financial institutions compared with the other institutions in the financial sector. The main characteristic of the commercial banks is in the form of providing financial services, namely accepting deposits and providing loans and credit facilities. For this reason, the commercial banking sector is called the depository institutions, with regards to the function of collecting money from the depositors (savers) (Saunders and Cornett 2008). On the other hand, the commercial banks provide their funds and the depositary funds to firms and individuals in the form of loans and credit facilities (Mishkin 2007).

In addition to the function of accepting deposits, the task of creating money has become more important in the process of generating funds, as part of the process of granting credit (Saunders and Cornett 2008). The process of granting loans is considered the main activity of credit institutions, especially the commercial banks, in terms of maximising profits, as people and enterprises request loans from the credit institutions in order to pay for their expenses and services as well as to establish new businesses and/or develop existing ones.

The effectiveness of bank credit is extremely important since the revenue generated by loans is the main source of profit for the commercial banks, compared to other sources. On the other hand, despite the importance of lending for both the commercial banks and the national economy, the function of granting credit is not free of risks (Casu *et al.* 2006).

The commercial banking sector attempts to invest as much of the available funds as possible, in the form of loans and credit facilities. However, depository institutions, especially the commercial banking sector, are exposed to numerous difficulties regarding the protection and recovery of funds granted in the form of loans and credit facilities. According to Casu *et al.* (2006), the main difficulty lies in the fact that the commercial banks are exposed to the failure of borrowers to repay their obligations (loans' principal and interest) on time.

Heffernan (2005) mentions that the failure of the commercial banks' clients to repay their obligations caused the emergence of non-performing loans, and is considered the most serious financial problems facing commercial banks. Therefore, commercial banks seek to avoid the exposure to this problem of non-performing loans or/and selecting the appropriate ways to deal with those loans, when they do appear.

In general, regarding the problem of non-performing loans, the majority of studies argue that the factors which cause non-performing loans are similar and are in the form of: (1) reasons related to the lender (creditor), which are basically linked to the creditor's weaknesses that affect the task of making the lending decision; (2) reasons related to the collateral provided by the clients in order to securitise the funds granted by the lender in the form of loans and credit facilities e.g. collateral may fail to recover the amounts of money that have been granted to the clients; (3) reasons related to the borrower (client) in terms of the client's inability to repay his/her obligations to the lender on time; and (4) reasons related to the general environment, as internal and/or external factors. The internal factors are linked to the economic, political, national policies and the natural environment. The external factors (international factors) are those reasons linked with the circumstances in other countries.

Conversely, due to the bad effects of non-performing loans on the national economy in general and the lending institutions in particular, the need to find appropriate ways to deal with non-performing loans has come to fore. Accordingly, the regulative bodies in a country and financial institutions seek to find appropriate ways to address non-performing loans either by avoiding or dealing with them.

As to the socio-economics of Libya, the priorities of the Libyan state are to pay attention in terms of improving the economic and social aspects of the community. Those priorities are in the form of improving the level of services provided by various institutions which are operating in the country. Amongst the institutions that have been improved by the Libyan state are the financial institutions, especially the lending institutions. Consequently, the Libyan financial institutions assumed the responsibility of promoting the national economy through financing the various sizes and types of production and service projects by loans and credit facilities. In addition, the Libyan lending institutions, especially the commercial banks have granted huge amounts of money to individuals in the form of agricultural loans, productivity loans and real estate loans in response to socio-economic development initiated by the Libyan state. The majority of these loans are typically awarded on the basis of the resolutions, which are issued by the supreme bodies of the state.

According to a number of economic bulletins issued by the Central Bank of Libya (CBL), the Libyan commercial banks have granted huge amounts of money to individuals and firms (private and public) in the form of loans and credit facilities. However, data presented in these bulletins demonstrate that the Libyan state-owned commercial banks have become exposed to the emergence of non-performing loans, which is the subject of this research.

1.2. AIM AND OBJECTIVES

This study aims to explore the problem of non-performing loans which have emerged in the Libyan state-owned commercial banks and also the reasons behind the emergence of such non-performing loans, by analysing the perceptions of the Libyan state-owned commercial bankers. In addition, the appropriate methods of dealing with the non-performing loans are also considered through the perspective of the participants. Accordingly, this study aims to analyse the primary data, which were collected through a questionnaire schedule and an interview survey. Consequently, the empirical analyses reflect the participants' opinions, views and perceptions related to the reasons leading to the problem of non-performing loans and the appropriate ways which may be used to treat this problem. In other words, this study is constructed as a perception analysis of the participants to the survey aimed at collecting primary data according to the identified research question.

In fulfilling its aims, this study develops the following objectives:

(i) Determine the lending activity, which is aimed to present the different types of loans and policies used to control the lending process related to the banking sector, especially the commercial banks;

(ii) Explore the different definitions and concepts relating to loans and non-performing loans.

(iii) Investigate the experiments of the other countries in dealing with the problem of non-performing loans.

(iv) Determine the methods used in treating non-performing loans;

(v) Explore the Libyan commercial banking sector by looking at the historical framework of the Libyan banking environment and the appearance of the Libyan state-owned commercial banks;

(vi) Examine the various aspects of non-performing loans that emerged in the Libyan state-owned commercial banks through the perceptions of the participants;

(vii)Provide recommendations related to the methods, which may be used in order to deal with non-performing loans (avoiding or addressing them).

1.3. RESEARCH QUESTIONS

This study attempts to answer a number of questions relating to the problem of non-performing loans that emerged in the Libyan state-owned commercial banking sector. These questions are as follows:

1. What are the types of loans that led to the emergence of non-performing loans in the Libyan state-owned commercial banks?
2. What are the reasons for the appearance of non-performing loans in the Libyan state-owned commercial banks?
3. What are the appropriate ways to deal with non-performing loans in the Libyan state-owned commercial banks?

1.4. MOTIVATION AND RATIONALE

As mentioned in the preceding introductory remarks, non-performing loans have been an important financial issue in Libyan commercial banks. For example, a number of economic bulletins issued by the Central Bank of Libya show that the Libyan state-owned commercial banks have granted a large amounts of money in the various forms of loans and credit facilities to individuals and firms. However, data offered in these bulletins demonstrate that, consequently, the Libyan state-owned commercial banks have become exposed to the problem of non-performing loans.

Due to the continuation of the Libyan state-owned commercial banking sector's granting of loans on the basis of decisions issued by the state, namely through political and social decisions, non-performing loans problem continued to remain a significant problem, which has impact on the real economy and the financial sector. Consequently, the continuation of non-performing loans in the Libyan state-owned commercial banking sector has prompted the need to examine the causes behind the emergence of the non-performing loans, and the methods can be developed to prevent and remedy them.

It is also important to state that banking and financial institutions are essential for the development of the country and the growth of the economy in Libya. It can be observed that Libyan state-owned commercial banks run into difficulty due to non-performing loans, meaning that these institutions are not functioning efficiently to contribute to the economic growth of the country. Being key players in the economy, commercial banks should be able to conduct their intermediary role between savers and investors in the Libyan economy, according to financial priorities. However, being owned by the state makes them vulnerable to political decision making process which negates financial priorities. Considering also that the size of the state in Libya will remain large and extending into the financial system in the coming years as well and since significant economic and financial liberalization will not be undertaken, it is important to study non-performing loans in the Libyan state owned commercial banking to have an understanding of their costs in the larger economy. This study, thus, is aimed at analysing the various aspects of non-performing loans in the state owned commercial banking with the objective that this will put the issue in a larger context.

1.5. RESEARCH METHODOLOGY AND METHOD

Collis and Hussey (2003) argue that research methodology is related to the methods which can be used in order to collect and analyse data and to how the research is designed. The basic approaches of the research methodology are in the form of qualitative research and quantitative research (Asutay 2006). Since this study seeks to explore the perceptions and behaviour of participants through survey schedules, it is constructed through qualitative research methodology.

As regards to research methods, in collecting primary data for this research and in analysing the assembled data, two research methods were utilised, being qualitative and quantitative.

1.5.1. Qualitative Research Method

The approach of qualitative research is relevant to the research methods which are used to collect and analyse non-numerical data. The interview method is considered the main technique relevant to qualitative research, which is utilised for this research as well. Therefore, data for this research was collected in the form of the interviewees' points of view, perceptions and suggestions regarding the non-performing loans in the Libyan state-owned commercial banks. A semi-structured interview was used in order to collect data from the interviewees (the managers of the administration loans of the five Libyan state-owned commercial banks). In addition, due to the large size of Libya, face to face and telephone interviews were used to conduct the survey. The data collected by using such interview techniques are analysed through the qualitative method, namely thematic coding.

1.5.2. Quantitative Research Method

The other approach of the research method is quantitative research, which was used to collect and analyse the numerical data. The questionnaire technique was used in order to gather data from the participants (sample of the employees in the credit departments of the Libyan state-owned commercial banks). Due to the sensitivity of the research problem (non-performing loans), personally administered questionnaires was used in the process of collecting data. Moreover, as mentioned above, because of the large Libyan geographical area, telephone and fax facilities were used in order to distribute and collect the questionnaires to and from the respondents. A total of 135 questionnaires were distributed to the officers in credit departments of state-owned commercial banking sector in various locations in Libya. The return rate was 66%, which is a quite reasonable return considering the importance of the issues for the banking sector. In terms of format, close-ended questions have been chosen as a questionnaire style. Computer software, namely the Statistical Package for Social Sciences (SPSS), was used in order to quantitatively analyse the quantitative data collected through the questionnaires method.

1.6. ORGANISATION OF THE STUDY

In fulfilling its aim and objectives, this study is constructed in a comprehensive manner to respond to the research questions set out in the preceding section.

Chapter One provides a general introduction to the study, which presents the aim and objectives, research questions and the research methodology related to this study.

Chapter Two attempts to present a literature review related to the definition of loans, various types of loans, lending policies, the basic factors for granting loans and the sources of the information that are used in the process of granting loans. This chapter also introduces the concept and definition of non-performing loans in connection.

Additionally, it presents a literature review as to the reasons leading to non-performing loans (bank-related reasons, borrower-related reasons, collateral-related reasons and the reasons related to the external conditions). Moreover, this chapter presents the impact of non-performing loans on the clients, banks and the national economy alike.

Chapter Three contains a number of empirical and case studies on various countries regarding the problem of non-performing loans. In addition, this chapter presents the traditional ways which might be used in terms of detecting and dealing with non-performing loans.

Chapter Four attempts to present the historical background of the developments in the Libyan banking sector and the state-owned commercial banks, in particular. This chapter also presents an analysis of the main activities of the Libyan state-owned commercial banking sector related to the functions of accepting deposits and granting loans and credit facilities.

Chapter Five provides an overview of the research methodology, focusing on the methods used in order to conduct this study. It presents details of the research process including research methodology and research methods in the form of questionnaires and interviews. In addition, this chapter presents the research methods for analysing the assembled primary data through interviews and questionnaire,

Chapter Six, being the first empirical chapter, presents the empirical results obtained from the data analysis of the respondents' perception as derived from the questionnaire survey by focusing on demographic questions and identifying the types of loans that led to the emergence of non-performing loans in the Libyan state-owned commercial banks, according to the perceptions of the participants.

The seventh chapter is the second empirical chapter, which presents the results obtained by analysing the respondents' perception as derived from the answers to the questionnaire in order to determine the various factors that led to the emergence of non-performing loans in the Libyan state-owned commercial banks. As in chapter six, this chapter also utilises statistical analysis.

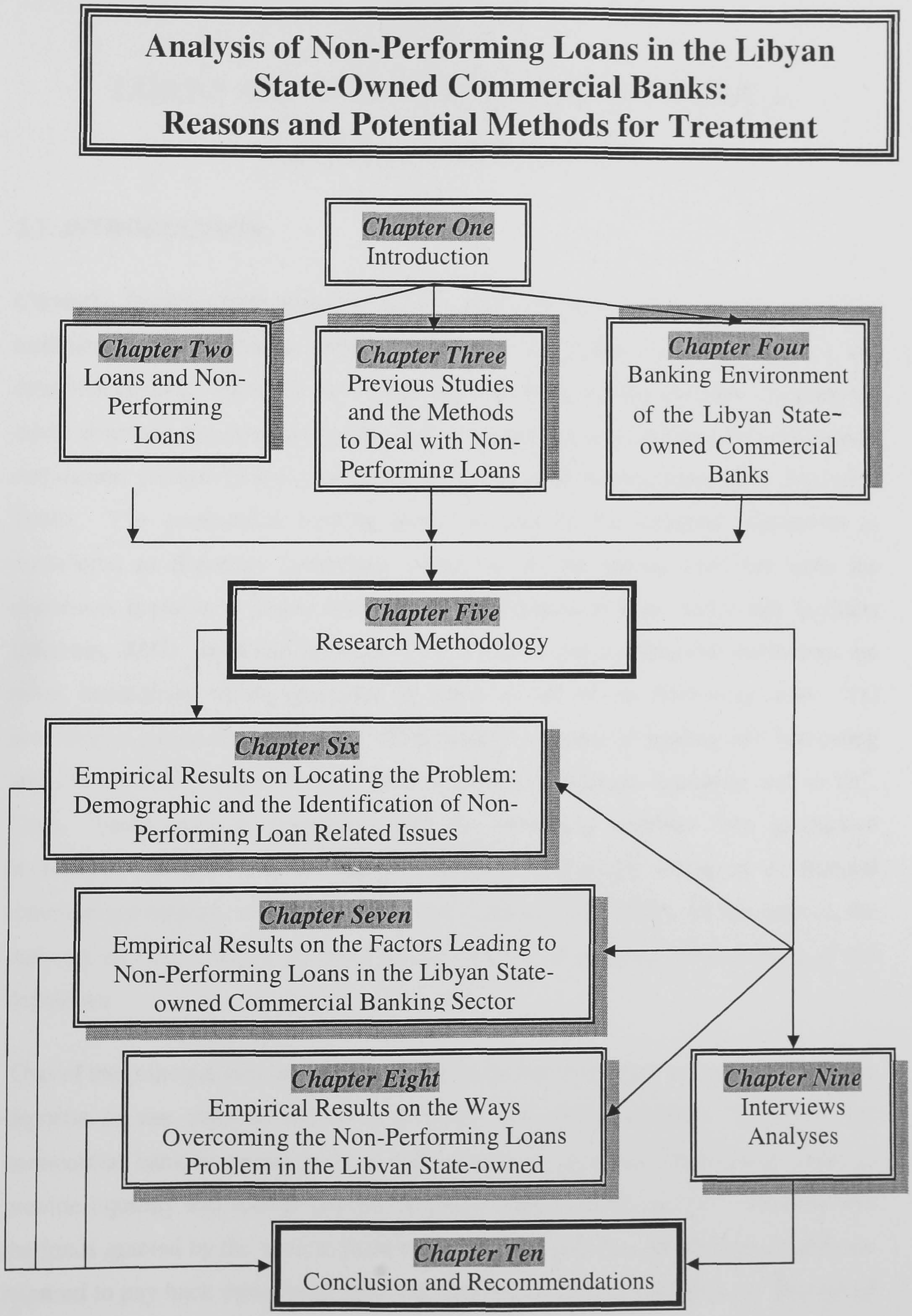
Chapter Eight presents the empirical results related to the analyses of the respondents' perception to identify the ways which may used by the Libyan state-owned commercial banking sector to deal with non-performing loans.

Chapter Nine is a qualitative method oriented empirical chapter in the form of interview survey analysis, which presents the results obtained by analysing the interviewees' opinions and perceptions regarding the emergence of the problem of non-performing loans in the Libyan state-owned commercial banks, by focusing on the types of loans, the reasons that led to the emergence of non-performing loans and the appropriate ways to deal with these non-performing loans.

Finally, the conclusion of this study and a discussion on the findings is presented in the tenth chapter, which provides a summary of the results and findings obtained in the previous chapters. In addition, this chapter attempts to present some recommendations based on the findings that can be used by the bankers in the process of granting loans to avoid or/and treat the problem of non-performing loans.

Lastly, a flow chart summarising the contents of each chapter of this study is shown in figure 1.1 below.

Figure 1.1. Contents and Structure of the Thesis



Chapter 2

LOANS AND NON-PERFORMING LOANS: A LITERATURE REVIEW

2.1. INTRODUCTION

Currently, financial institutions are globally important organizations, as they act as the intermediary institutions in improving not only the economic life of peoples, but countries as well. These financial institutions include savings and loan associations, credit unions and commercial banks, and non-depositor institutions such as insurance companies, pension funds, investment companies, and finance companies (Maxwell, 1994). The commercial banking sector as part of the financial institutions is considered as depositor institutions which act as the money receivers from the depositors (persons or firms) and convert the deposits to loans and credit facilities (Mishkin, 2007). Bain and Howells (1998: 9) states that the financial institutions are those institutions which specialize in some or all of the following tasks: "(1) providing a payments mechanism, (2) providing a means of lending and borrowing and (3) providing other services, such as foreign exchange, insurance and so on". Thus, "banks play a significant role in converting deposits into productive investment" (Podder and Al Mamun, 2004: 729) through acting as a financial intermediary between savers and borrowers (Collins *et al.,* 1999). In this process, the majority of funds, which are used in the process of granting loans, belong to the depositors.

One of the principal functions of the commercial banking sector is accepting funds as deposits to use them in the form of loans and credit facilities. Therefore, the commercial banking sector gives a high priority to the credit function in order to provide liquidity and achieve profits (Hu *et al.* 2004). Madura (1995) mentions that the funds granted by the bank in fact belong to the depositors. Accordingly, banks are required to pay back these funds upon the depositors' request. In contrast, because of the uncertainty of the bank to recover the amounts of money which it granted in the form of loans, such loans are considered risky investments. In general, loans are considered as the main types of financial intermediary investments especially in the commercial banking sector. So, the commercial banking institutions try to select the best loan requester by using their own tools in order to protect the granted funds. Furthermore, the task of selecting good borrowers by the banks is considered as the main step to protect their money and the depositors' funds, which are ready to be used in the process of granting loans (Dyer, 1980).

In practice, loans are considered as the types of investment which have the highest levels of risks with regards to the difficulty of the funds' recovery. The result is that lending institutions may be exposed to the fund losses granted in the form of loans and credit facilities, as a product of the failure of borrowers to repay their obligations. Consequently, in many cases, the loans granted by banks turn into non-performing loans due to the inability to recover their money (Heffernan, 2005).

This chapter is an attempt to present the main function of the commercial banks, which is to grant loans in order to achieve profits on one hand and to contribute to the economic development of society on the other. Therefore, this chapter provides the definition of loans, and discuss the different types of loans. In addition, this chapter expands to provide a description of loan policy, which is used to control the process of granting loans in order to achieve the banks' goals. Difficulties facing commercial banks mainly the emergence of non-performing loans is also highlighted. Accordingly, this chapter defines the different concepts of the non-performing loans and the reasons, which lead to this problem. Moreover, this chapter explores the negative effects of non-performing loans on the borrower, the lender and the national economy.

2.2. LOANS

The principal function of the commercial banking sector is to accept funds as deposits and use them in the form of loans and credit facilities (Hu *et al.* 2004). Therefore, the task of granting loans is considered as one of the most important functions of the commercial banking sector in order to provide liquidity and achieving profits (Hubbard, 2000). According to Kolb and Rodriguez (1996) majority of the commercial banks' assets are in the form of loans and credit facilities. Consequently, the loan portfolio in the commercial banks is one of the most important assets related to the balance sheet, which normally represents the highest percentage of the total assets (Kolb and Rodriguez, 1996).

Granting loans falls in the high-risk section of the banking trade. In other words, as Hubbard (2000) suggests granting loans is considered as a risky investment because the funds granted by the banks in the form of loans are not 100% owned to the banks, but the majority of these are owned by the depositors. Therefore, the banks are obliged to repay the depositors funds at their request (Hubbard, 2000). Abdul-Rahman (1999) noted that the bankers seek to use the cash available to maximize profits for their banks. On the other hand, he pointed out that the bankers have to take into account the need for sufficient cash to meet any emergency related to the cash demands by the depositors in the future, which implies, hence, reserves by regulation to be kept by banks.

In general, loans are considered as the main types of financial intermediary investments especially in the commercial banking sector. In this intermediary role, the commercial banks try to select the best loan requester by using their own financial evaluation tools in order to reduce their own risk. Furthermore, selecting good borrowers by the bankers is considered as one of the main steps in order to protect the funds of both banks and depositors in reducing the potential risk; these in turn can be granted in the form of loans and credit facilities (Dyer, 1980).

From a pragmatic point of view, the rationale behind the existence of banks is the provision of different types of loans, which in turn are considered as the main source of the banking profits. Although most of the risks faced by lending institutions are on the process of granting loans, the majority of the revenue generated by such institutions is as a result of profits from such loans (Hu *et al.*, 2004). It is also pointed that loans are considered as an important source of liquidity. This in turn results in the majority of commercial banking assets being in the form of loans and credit facilities. Consequently, the loan portfolios offered by the commercial banks are considered as the most important asset for it represents about 65% of the total assets value in the balance sheet of the commercial banking sector (Kolb and Rodriguez, 1996). As a result, loans represent the highest percentage of total assets.

It should be noted that, loans are considered as the external financial source for the public and private sector. According to Madura (1995), the banking sector seeks to meet the requirements of their economic life in the form of loans and advances. Therefore, banks try to invest most of the liquidity (cash) in order to accumulate more revenues. However, banks are maintained on a sufficient amount of cash to face a sudden withdrawal of cash by depositors, which fit with the principle of liquidity.

2.2.1. Definition of Loan

While loans are one type of bank credit, the comprehensive definition of credit includes all types of lending, which are available in the form of loans. Hand and Henley (1997: 523) provides a definition of credit as "amount of money that is loaned to a consumer by a financial institution and which must be repaid with interest, in instalments (usually at regular intervals)". Added to that, Collins et al. (1999: 10) defines credit as "loans that have been extended to households, businesses, or the government by banks or other financial intermediaries".

A comprehensive definition of bank lending is provided by Abdassalam and Algmate, (1992: 1) when they state that credit includes:

"providing the individuals, institutions and establishments in the community by funds, that the debtor undertakes to repay those funds, benefits, commissions due and other expenses paid in a lump sum or in instalments in a period of time, usually, supporting this relationship by providing collateral to the bank to recover its funds in the event of the failure of the clients to pay back their obligations".

In short, loans are defined as the amount of money, which granted from a lender to borrower. In credit, a borrower uses the amount of credit to pay for his / her expenses and services, and in return is committed to repay the principle of credit plus interest over a period of time to a lender (creditor). Therefore, credit can also be described as the ability to borrow money. It is consequently, considered as 'buy now pay later' or as 'future money today' or it allows 'spending future income and enjoying the benefits now' (Payer, 1991).

In general, in the process of granting credits, the lender demands the borrower to provide collateral in order to retrieve its funds in the event of borrower weakness or defaulting to repay their obligations. Usually, the collateral is in the form of assets (properties) that can be held by the lender until the amount of the loan is repaid by the borrower, or in the form of personality collateral (character). The majority of lenders do not grant loans without collateral and moreover, they prefer liquid collateral (Hubbard, 2000). Madura (1995: 75) defines liquid as "anything that could be easily converted to cash without a loss in value". Therefore, liquid collateral is the best way which lenders can use to pull pressure on borrowers to pay back their debt. Furthermore, collateral is considered as the safety valve for the lenders in order to secure their funds (Podder and Al Mamun, 2004).

Briefly, Guardia (2002) mentions that a loan consists of three parts and without them the crediting process cannot exist. These are: the lender (sometimes called creditor), which advances money to the borrower, is the first part of the credit process. The lender can be a bank such as commercial bank, universal bank, savings bank and cooperative bank, or a non-banking institution, which is defined as financial intermediary such as union credit. Second part is the borrower, who requests money from the lender to pay for his/her expenses and services is the second part of credit. The borrower is in the form of an institution or a person who has a shortfall in funding. The third part of the credit process is the agreement between lender and borrower. Usually, the credit agreement is in the form of a legal contract to insure the rights of both creditor and borrower. The credit contract is therefore considered as an agreement between lender to advance money (loan) and borrower to pay back the principal and only interest including any other management expenses.

2.2.2. Aspects and Types of Loans

It should be noted that credit is considered as a cornerstone of the modern economy and the financial system through which financial transactions are easily conducted, as it provides the opportunity to purchase items and services and pay the cost over a period of time at a later date. Incidentally, there is no specific categorization of loans, which can be classified according to the length of the loan, the purpose of using the loan and the security of the loan (Abdassalam and Algmate, 1992).

2.2.2.1. Length of the loans: According to the length, loans can be divided into three types, i.e. short-term, medium-term, and long-term loans as explained below:

i. **Short-term loans:** are those loans that have to be paid back in less than one year, which are considered as the most prevalent types of loans, especially in the commercial banking sector. Furthermore, these kinds of loans are characterized by low investment risk, and therefore, lower cost which leads to a decline of the interest rates (Hempel *et al.,* 1994).

ii. **Medium-term loans:** are those loans that are recovered over a period of one year to less than five years and are generally used to finance long-lived assets such as cars, furniture, etc. Usually, the borrower of this type of loans has to repay the principal amount of the loan plus any interest in instalments (Madan, 1990).

iii. **Long-term loans:** are those loans, which have to be recovered over a period of five years. This type of loans is used to finance large construction projects or purchasing real estates such as buildings (houses, factories, schools, hospitals, etc.). Also, the repayments of such loans are normally in instalments (Madan, 1990).

2.2.2.2. Purpose of loans: This classification is based on the purpose of the use of the loan, which is divided into:

i. **Consumer loans:** These kinds of loans are used by borrowers in order to purchase consumer goods such as cars, furniture, building maintenance, medical treatment and education fees. Consumer loans are considered as risky investment due to the possibility of the borrower's inability to pay back the principal and interest of the debt. Therefore, the interest rate on such loans is high (Perry, 1996).

ii. **Commercial loans:** These types of loans are used to finance commercial transactions usually by businesses and they are repaid from the revenues of the projects (Platz *et al.,* 2001).

iii. **Real estate loans (mortgages):** These types of loans are used to finance the purchase of real estate such as buildings (houses, schools, offices, hospitals etc.) or/and the lands such as farms. The real estate loans are less risky compared with other loans as they are secured by the properties, which are purchased as collateral to repay the amount of loans in the event of borrowers defaulting to repay their obligations (Perry, 1996).

2.2.2.3. Secured and unsecured loans: This category is based on the guarantees provided by the borrowers to ensure repaying their debts, which reduces the risk element. This classification shows that there are two types of loans, which are in the form of secured and unsecured loans.

i. **Secured loans:** These types of loans are characterized by the provision of guarantees by the borrower in the form of fixed assets such as cars, houses, farms, etc. or current assets for instance, account receivable, cash, etc. to ensure the collection of loans. The lender can conduct an auction in order to sell the collateral (securities) in the event of the borrower's weakness to repay the amount of loan (Rao, 1992).

ii. **Unsecured loans:** Rao (1992) mentions that in these types of loans the borrower does not have to provide assets as a security for the loans. Interest rates on such loans are higher than the interest rates on the secured loans because of the high level of risk associated with these types of loans. Personal loans and overdrafts are forms of unsecured loans because the lenders are granting these types of loans to reliable clients.

2.2.3. Loan Policy

One of the primary tasks relevant to the monetary authority of the modern state is to establish a framework for general lending policy to make sure of smooth running of the financial and economic system (Abdassalam and Algmate, 1992). Such regulations have been instituted in order to help financial institutions to develop their own written lending policies.

Since financial institutions give special importance to the lending operations, the officials of these institutions give considerable attention to set up the written loan policy. Saied (2000) argues that the written loan policies for the financial institutions in the same financial regulative environment are similar in most respects. However, in practical terms, these policies may vary from one institution to another in accordance with the circumstances of each institution.

The written loan policy is considered as the most basic element in the process of granting loans. Therefore, the existence of a number of expert staff in the process of granting loans does not necessarily mean that the lending institutions would not be exposed to the credit risks. Those decisions typically arise from the individual decisions in the process of lending without reference to a written loans policy. A written loan policy is considered as the main tool, which is used to guide the different operations of the banks. Accordingly it is conducive to the success of the banker's loans decisions (Hempel *et al.,* 1994).

Glantz (2003: 348) argued that lending institutions must have a written loan policy for the following reasons: "(1) to grant loans on a sound, collectible basis, (2) to invest funds profitably for the benefit of shareholders and protection of depositors, (3) to serve the legitimate credit needs of the community".

Briefly, there are a number of reasons, which lead the lending institutions to create a written credit policy. First, the responsibility of managing loans granted is an important and serious undertaking, as the credit management tasks aim at improving cash flow and limiting the bad debts. Second, a policy assures a degree of consistency among departments. By writing down the expected goals of the institution altogether, the staff will realize that they have a common set of goals. In addition, a written loans policy sets out the functions of each department separately, in order to avoid duplication of work, which leads to efficiency in effort and time. Third, written loan policy provides a consistent approach to deal with clients. Thus, the process of the decision-making task becomes structured, logical and so on the basis of predetermined criteria. So, the lending policy has a positive impact on the clients, because of their sense of equality with others with regard to their rights and duties.

The lending policy, thus, has multiple objectives, which banks seek to achieve. This includes the proper credit decisions, which must be within the framework of the policy objectives of the bank. In other words, credit policy is a set of principles which governs the method and procedures for the granting of credit facilities, which includes for example, types of economic and financial activities which can be funded through credit, assessment of the facilities required, determination of the amounts awarded, types of credits, maturity dates, main conditions, etc. (Hindi, 2006). Furthermore, Rose (2002) mentioned that the functions of the written loan policy are to highlight the procedures that have to be followed by the employees in credit management.

Accordingly, the lending policy is one of the important tools to clarify the objectives of both the credit management in particular and the bank in general.

2.2.3.1. Written loan policy

Loan policy is defined as the

"set of principles and foundations established by the senior management of the bank as a guide to the various administrative levels in the event of makes of programs and procedures for granting loans. Nevertheless, it is guided by the decision makers to take action on the clients' applications. Also, abide by the implementing of the decisions that have been taken" (Abdassalam and Algmate, 1992: 10).

Rose (2002), and Hanafi and Abukhf (1994) state that there are some important elements, which must be taken into account in order to establish a good written loan policy. These elements are considered as the basis for the success of any bank's lending policy. Accordingly, the elements of a written loan policy are:

(i) In the preparation of the lending policy, the legal considerations that govern the banking system in a particular state are taken into account. These considerations are issued by the monetary authorities, usually in the form of the central bank, and/or financial services authority of that state. Accordingly, the bank's operation to develop its loan policies should follow the monetary policies set by the Central Bank;
(ii) The banking lending policy works to determine the limits and the area of competence of individual staff members and at management level within the scope of the management of credit, and it works to identify the amounts and types of loans that can be granted by each member of staff or management in the management of loans;
(iii)One of the functions of the bank loan policy is to identify the types of allowable loans, as the types of loans differ from one bank to another depending on the objectives of each bank. Thus, the group of banks operating in the same geographical area are not necessarily similar, which often can be different in terms of the types of services provided, especially in relation to the types of loan products;
(iv)The bank lending policy works to determine the cost of services provided by the bank (lender). Also, it determines the expenses to be paid by the bank for lending

operations, and, thus, determines the total value which presumably is expected to be paid by the client (borrower);

(v) The banking lending policy works to determine the conditions that need to be stipulated in the loan application. Therefore, there are some conditions to be met by the credit applicant, for instance personal references information, cash capacity, and collaterals, etc.;

(vi)A written loan policy works to identify procedures to be followed to reach the decision to grant the loan by the officer-in-charge, in order to avoid the lending risks which can result from the bad decisions made by lenders;

(vii) One of the functions of the bank lending policy is to specify the geographical area served by the bank. Therefore, those areas are determined according to several considerations, including the social and economic conditions of the inhabitants of those areas and the safety level of these areas;

(viii) Written loan policy also aims to identify the types of collateral, which can be accepted by the bank (lender) in order to reduce the risks that may arise from the lending process. Moreover, the standards which specify the appropriate types of safeguards takes into account the exposure of the collaterals to fluctuations in the market prices as well as the ease of converting these guarantees into cash (liquidity);

(ix)Setting a date to pay back the amounts of loans granted is also a component of the written lending policy. Therefore, the important duty of the loans officer is to determine the repayment dates of each loan, based on the bank policy, for example, short-term loans, medium-term loans and long-term loans. Also, such duties include determining the time allowed for the late payments, which usually differ from one client to another according to their previous reputation and credit scoring;

(x) The method of determining the loans payment by the borrowers is one of the functions related to the lending policy. Thus, the payment methods vary from one loan to another and from one borrower to another. For example, some types of loans are repaid at one time, but the others are repaid in instalments. There are also certain types of loans which are designed to repay the principal amount plus accrued interest, and other types involve repaying the principal of the loan and the interest separately;

(xi)Determining the volume of funds allocated for lending is one of the important elements of a written loan policy. The excessive lending process negatively affects the lender in terms of the risks of non-recovery of loans. On the other hand, the lack of available funds leads to the loss of the profits, which could be achieved. Thus, the lending policy seeks to achieve the principle of profitability and liquidity;

(xii) A written loan policy elements works to determine the cost of the loans that would be granted. The loan cost is a number of elements that are in the form of interest volume, expenses administrative, commissions, etc. Therefore, the total value of the loan is the principal amount of the loan plus all these extra costs;

(xiii) The lending policy outlines the ways to follow up the loans, which is considered as an important component of the lending policy because it ensures the safety of the recovery of the value of loans granted. However, the lending policy provides that the task of following up loans is always separate from the task of issuing the decision to grant the loan. Therefore, this leads to show the right image on the financial status of the bank; and

(xiv) The lending policy gives attention to identify the documents that should be provided by the borrower (borrower files).

In addition, by creating a written loan policy the lending institutions seek to achieve their goals. Overall, it can be noted that the written loan policy leads to reach several results, which are: (1) It is considered as a tool that is used to follow up the loans, which have been granted; (2) It allows optimal use of the lenders funds; (3) It enables granting loans based on sound decisions which guarantee to reach a high percentage of profits and ensuring the collection of such loans; and (4) It is considered as one of the tools which are used to encourage the financial institutions to invest their funds in loans.

In addition, Hempel *et al.* (1994) argue that a written loan policy should obtain three results, from the viewpoint of the comptroller of the currency, which can be summarized as:

(i) Producing sound and collectible loans;

(ii) Providing profitable investment of bank funds; and

(iii) Encouraging extensions of credit that meet the legitimate needs of the bank's market.

2.2.4. Basic Factors for Granting Loans

Banks are faced different types of risks, especially credit risk (Glantz, 2003). Therefore, bankers must verify the ability of the borrowers to pay back their debts in the future. In addition, a number of authors such as, Hanafi and Abukhf (1994) and Ross *et al.* (2000) mention that there are five factors that can help the bankers to assess the loan applicants: (1) capacity; (2) character; (3) capital; (4) collateral and (5) economic conditions. Moreover, it should be noted that Rose (2002) adds a sixth factor i.e. control. These six criteria (six Cs) can be presented as follows:

1. ***Capacity*** represents the measurement of the ability of the borrower to pay back the amount of debt in time. It is measured by employment, income, current outstanding debt, and monthly expenses (Ross *et al.,* 2000);
2. ***Character*** represents the measurement of the willingness of the borrower to repay the debt. It is measured by, for example, the past credit experience, length of employment, honesty, previous financial behaviour and length of residence (Allen *et al.,* 2004);
3. ***Capital (Cash)*** represents the measurement of the participation of the borrower to finance a project. Whenever, borrower participation in the project is high, it means the risk of the loan is low. It is measured by factors such as borrower liquidity in the banks or in cash (Rose, 2002);
4. ***Collateral*** represents the measurement of the availability of the borrower resources. According to Booth and Booth (2006: 68) collateral is “traditionally viewed as a risk-reducing”. Also, Glantz (2003: 26) has defined collateral as “property pledged as security for the satisfaction of a debt or other obligation”. Thus, the lender can use these resources in the event of the borrower’s weakness to repay the amount of loan. It is measured by, for example, assets, savings, properties and investments (Allen *et al.,* 2004);
5. ***Economic Conditions*** represent the measurement of the banker’s skills in forecasting economic conditions, particularly with regards to long-term loans. It is measured by, for example, predicting the future rate of inflation (Hindi, 2006); and lastly
6. ***Control*** means the control of all the regulations and procedures that govern the process of granting loans. As the absence of good control in the granting loans

process may lead to the emergence of the loans problem. In particular, it aims to control the problem of non-performing loans (Rose, 2002).

Bankers use the information contained in the loan application form in order to select the performance loans in accordance with the previous six criteria (six Cs). Hence, the lenders follow the six Cs in order to ensure that there is firm evidence for recovering the value of the debt in the event of the borrowers default to pay their obligations.

2.2.5. Credit Information

Credit institutions need sufficient information on the loan applicants, especially first-time applications. Therefore, the credit officers rely on the information gathered in the process of the credit granting decisions. Thus, credit information is considered as an ongoing process, which has serious impact on the credit institutions (Longenecker *et al.,* 2006).

The credit information has four benefits, which has direct impact on credit markets activity (Japelli and Pagano, 2000: 3): "First, it improves the banks' knowledge of applicants' characteristics and permits a more accurate prediction of their repayment probabilities. Second, it reduces the informational rents that banks could otherwise extract from their customers. Third, it can operate as a borrower discipline device. Fourth, it eliminates borrowers' incentive to become over-indebted by drawing credit simultaneously from many banks without any of them realizing".

2.2.5.1. Credit information sources

McMenamin (1999) mentions that there are a number of sources related to the credit information, which are divided into internal and external sources. Lenders seek to collect information of loan applicants, but most of that information is not freely available. Credit institutions use a number of professional sources to collect the necessary information about the borrowers. The following elements, hence, are considered as sources of credit information:

***2.2.5.1.1. Financial statements*:** This source is considered as the first line of defence of the lending institutions and is regarded as a mirror reflecting all the operations of the clients. Thus, the credit institutions require their clients to provide financial statements such as, balance sheets, income statements and bank statements in other institutions (Ross *et al.,* 2000).

According to Hempel *et al.* (1994: 380), a uniform loan documentation checklist should be required for each credit file. The listed documents include only those most frequently used in various types of lending transactions:

(i) The basic loan agreement;
(ii) The credit application;
(iii) The borrower's financial statements;
(iv) Credit reports;
(v) Evidence of perfection of security interest;
(vi) Assignment of rents or leases on real estate or other productive property;
(vii) The borrower's life or casualty insurance policies (showing the bank as the loss payee);
(viii) Corporate borrowing resolution or partnership agreement;
(ix) Subordination agreement;
(x) Continuing guarantee;
(xi) Financial statements on the guarantor;
(xii) Correspondence; and
(xiii) Copies of existing and paid-off promissory notes.

2.2.5.1.2. Credit reports on the client payment history with the credit institute (Internal sources of information): Credit institutions keep all documentation of the clients' transactions. These documents are usually included in special reports of the client with the institution, which for example include withdrawal, deposit, and overdraft records. They also provide information about some of the banks past lending operations for some clients. Consequently, these reports show the risks of granting loans to new clients, renewing old loans and/or granting loans to former borrowers (Ross *et al.,* 2000) and (Hempel *et al.,* 1994).

2.2.5.1.3. Interview of loan applicant: A personal interview of the loan applicant is considered as one of the key elements on which the lending decision is based. This task is conducted by staff members who have been trained and have high expertise in the craft of obtaining the necessary information from the prospective client. One of the tasks is to ascertain that the information obtained correlates with the documents submitted by the prospective client. In some cases, requests for additional information (personal or related to the project) from the loan applicant may be made, if the staff member decides that additional information is necessary to accept or reject the application (Hempel *et al.,* 1994) and (Hanafi and Abukhf, 1994).

2.2.5.1.4. External sources of credit information: In some cases, lending institutions utilize specialized institutions to obtain certain information on the lending applicant is credit history. For example, the American company called Dun and Bradstreet has provided such credit-related information on approximately three million American and Canadian projects (Hanafi and Abukhf, 1994). Therefore, lending institutions can also obtain some information concerning the customer's prior credit reputation with other banks in the area of borrowing, i.e. the customer's payment history with other banks (Ross *et al.,* 2000; and (Hempel *et al.,* 1994).

Generally, the processes of granting loans by lending institutions, particularly the commercial banks, are the most important sources of revenue to those institutions. Paradoxically, these investments (loans) are identified as the types of investments that have a high level of risk compared with other investments. Therefore, there are many studies interested in the identification and analysis of risks related to the process of granting loans. Hempel *et al.* (1994: 67) present a definition of the risk as "interest or principal, or both, on securities and loans will not be paid as promised".

Credit lending institutions do use and refer to credit rating agencies in their evaluation of credit application. These rating agencies have developed particular methods to facilitate evaluation process, such as credit rating and credit scoring methods for individuals. However, they have specialised methods for corporate borrowing as well as credit rating agencies have become essential institutions in financial sector in modern world.

In practical terms, the emergence of credit risk is normally demonstrated by the increase in the proportion of medium-quality loans. This appears in the assets side of the balance sheet. Being aware of this factor, credit institutions are working hard to reduce medium-quality loans by selecting good-quality loans. Accordingly, lending institutions work on the creation of special departments called Risk Administration to measure the proportion of the risks that may be exposed on each loan individually. Thus, the most important function of risk management is to measure the risk of loans, which leads to avoiding investing in medium-quality and low-quality loans (Hempel *et al.,* 1994).

2.3. NON-PERFORMING LOANS

While credit is an essential of modern financing, it is inevitable that failures do take place in paying back the loans. There are several reasons why the borrowers may default to repay their obligations which result in some loans being exposed to the problems of non-payment of their value (Kolb and Rodriguez, 1996). Non-performing loans are considered as the most serious problems the banking sector face in general and the commercial banks in particular. As the non-performing loans could cause a financial crisis (Fofack, 2005). In other words, Fofack argues that in the event of the failure to address the problem of non-performing loans this could be rapidly turned into a financial crisis. In addition, the problem of bad debts may lead to damage of the national economy, especially the developing countries which rely on bank credit as an essential broker of economic growth (Breuer, 2006).

In addition to the definitions related to the loans, the term of loans refer to the process of 'buy now and pay later'. Kolb and Rodriguez (1996) mention that there are no adequate safeguards for the recovery of loans granted from a practical point of view. From the investment perspective, loans are considered as future investment, therefore, the banks have no specific tools to forecast the future of those loans, and, hence, banks face different types of risks due to bad loans. Furthermore, as there is a period of time between granting the loan and repayment of the interest and/or the principle of the loan, consequently there are no definite views as to when the loans should be repaid (Payer, 1991).

The highest number of non-performing loans can be traced to those developing countries, suffering from poverty. This is the result of people living in relative poverty and struggling to manage finances and rising living costs. This in turn has an effect on increasing the cost of living, which creates further difficulties. Poor people have difficulty in saving money, which they can rely on to pay for their expenses, so they ask for loans from intermediary financial institutions, which include especially the commercial banking sector. This may lead to a situation where they may face difficulties to pay back the loans. Consequently, the lenders then face difficulties to collect such loans. Therefore, granting loans to poor people usually leads to the emergence of bad loans due to the difficulty of paying back their obligations (Bakhoum *et al.* 1989).

It should, however, be noted that as compare to the non-performing loans in developing countries, majority of bad loans originates from the industrialised large economies, where the amount of loan is rather in large magnitudes. The recent financial crisis is an indication of this, as default in mortgage payments led the beginning of the crumbling financial institutions in the USA one after another. Thus, the magnitude and size of the problem is a real concern in the industrialised countries, where institutional and individual non-performing loans is haunting reality.

2.3.1. Definition of Non-performing Loans

Overall, there is no global definition for non-performing loans which could be applied to all economies of the world (Bloem and Gorter, 2002). Therefore, the definition of non-performing loans varies from one contributor to another and from one banking system to another according to banking laws and regulations in force in different countries, which define, describe and classify the loans. Consequently, there are several definitions of non-performing loans; each one tries to spotlight the main reasons that reflect the degree to which the loans are considered as good or bad (non-performing). However, there is a convergence in the definition of bad debts despite being multiple and varied in some points.

Briefly, Bloem and Gorter (2001: 6) define non-performing loans as "concerning non-performing loans, the bottom line in the international manuals seems to be that loans are good unless there is absolute certainty that a loan is not going to be repaid under existing arrangements". This definition shows the risks related to the nature of the loan. In addition to this formal definition, Setiono (2002: 3), in his more practical definition, states that "non-performing loans are loans that fail to pay interest as well as instalment of principal".

In his definition, Fuchita (2004: 2) refers to the consequences of the non-performing loans as when he states that "any loan which fails to meet certain obligations to pay interest and/or principal". Moreover, Mandler and Finzi (2003: 4) provide an accounting related definition of non-performing loans: "non-performing loans (NPLs) originate entries in the national accounts only when it becomes clear that the debt will not be repaid under the agreed conditions". On the other hand, Oyama (2003: 5) provides a bank-oriented definition of non-performing loans that "banks' bad loans are usually defined as those loans whose recovery is deemed according to given criteria, to be doubtful".

In referring to the consequences and period of non-performing loans, Montgomery (2002: 5) states that non-performing loans are: "those loans to bankrupt borrowers, past due loans and loans past due by more than three months". Rose (2002: 118) explains this further in describing non-performing loan as "a loan is placed in the non-performing category when any scheduled loan repayment is past due for more than 90 days". Additionally, by referring to the period of payment difficulty, Bloem and Freeman (2005: 8) give the definition of non-performing loans as "a loan is non-performing when payments of interest and/or principal are past due by 90 days or more, or interest payments equal to 90 days or more have been capitalised, refinanced, or delayed by agreement, or payments are less than 90 days overdue, but there are other good reasons such as a debtor filing for bankruptcy to doubt that payments will be made in full". Others consider non-performing loans as a borrower stopping to repay the instalments in a period of over six months. For instance, according to Cho (2002: 10) "a loan was considered non-performing only when it was past due six months or more while provisioning requirements". Also, Dewenter *et al.* (2004: 18) present the definition of non-performing loans as "a loan to a bankrupt or quasi bankrupt firm or a loan overdue for six months".

In a study for the International Monetary Fund (IMF), Cortawarria *et al.* (2000: 12) define non-performing loans according to region where they originate from. In the following Asian countries the time-frame element of defining non-performing loans is as follows:

- India: assets overdue six months.

- Indonesia: substandard, doubtful, loss (over three months overdue).
- Korea: loans overdue over three months plus non-accrual loans.
- Malaysia: substandard (optional), doubtful, loss, principal or interest overdue by three or by six months (at banks' discretion).
- Philippines: substandard, doubtful, loss loans payable in monthly instalments more than three months overdue and loans repayable on other terms if one month over due.
- Singapore: substandard and below (over three months).
- Thailand: substandard, doubtful, loss (over three months).

In providing similar periodic definition of non-performing loans, Pintado *et al.* (2003: 2-3) identify the European countries, which have specified the period of time according to which a loan becomes non-performing and is depicted in table 2.1 below:

Table 2. 1:Non-performing Loans in the European Countries

60 days	90 days	More than 90 days	No explicit criteria used
Sweden	France Spain Portugal Norway Finland U.K. (for interest accrual) Germany (only Deutsche Bank, using U.S. GAAP) Netherlands (ING bank use 90 days) Switzerland	Italy Greece	International Accounting Standards (IAS) 39 Denmark Germany Austria The Netherlands Belgium U.K. Luxembourg Republic of Ireland

Source: (Pintado *et al,* 2003: 2-3)

In providing a contextualised definition of non-performing loans, Libyan official definition can be presented. According to section No. 2, article No. 6 of the Resolution of the Board of Directors of the Central Bank of Libya No. 47 of the year 2006, regarding the fundamentals and criteria of debts classification and the lower limits for the required provisions against debts, the debt is classified under non-performing loans if there was a "non-commitment to the repayment agreement is past due for more than one year" (Central Bank of Libya, 2006e: 6).

Furthermore, general criteria for non-performing loans can be established by monetary authorities in general or by the banks in particular to determine whether a loan is good or bad (non-performing). Generally, the lender believes that the loan portfolio contains good loans as long as the borrowers pay the instalments and interests on the debt on time. The requirement being that the borrowers are obliged to pay back their debt as stipulated in the loan contract with the lender. The loan becomes non-performing (bad) if there is definite information that the borrower stops paying back his/her debt for any reason. Indeed, there is difficulty or uncertainty of determining the exact financial situation of the borrower (Kolb and Rodriguez, 1996).

Theoretically, as there is no universal definition of bad debts there is no uniform standard to determine if the loan is bad or good. In practical terms, there are two types of criteria which are used in order to attain and asses the situation of loans. Quantitative and qualitative criteria are used individually or collectively by credit institutions to identify the situation of the loan. A quantitative criterion uses numbers of days or months to determine the weakness of borrowers to repay their payments, while a qualitative criterion uses all the information about the future of loans and borrowers (Bloem and Gorter, 2002).

In determining whether a loan is good or bad, risk assessment is utilised. The ambiguous and unambiguous risks are those faced by the banking sector in their daily lending operation. Therefore, the secret plans of the borrower regarding to non-payment is one of the hidden risks. So, banks aim to determine whether a loan is going to be bad or not in the future. It is a fact that banks could not determine if the loan is going to be good or bad, because a good loan today might be a bad loan in near or distant future (Fuchita, 2004).

In sum, granting money to the loan applicants is considered as the main profit-making operation for the banking sector and credit institutions. Banks consider interests as an income (revenue), and principle as a capital. So, a loss of the interest is a loss of an income, and a loss of the principle is a loss of the capital. Consequently, losing both the interest and/or the principle of the loan is considered as a non-performing loan (Podder and Al Mamun, 2004).

2.3.2. Factors Leading to Non-performing Loans

The increased attention to the problem of bad debts in recent years is due to the increasing problems caused by these risks in the banking system in particular and the national economy in general. Saied (2000) mentioned that the reasons which lead to the emergence of non-performing loans are related to: (1) The lender (bank), (2) The client (borrower), and (3) The external and internal environment.

2.3.2.1. Factors related to the bank (Lender)

2.3.2.1.1 Deficiencies in credit information, which are considered as the basis of the lending decision

One reason for non-performing loans is sole reliance on the incorrect and inadequate information especially that provided by the clients on the activities to be funded particularly a new customer who has not previously dealt with the bank (Basu, 2003), and hence the customer does not have a history of business with the bank. Chlch (2002) mentions a number of points, which lead to defaulting loans related to the weakness of the credit information submitted by the clients. These points are summarized as follows:

(i) Overestimating the customer's needs, which allows them to obtain financial facilities exceeding their needs;

(ii) Allocation of a significant proportion of loans or facilities to small number of borrowers;

(iii) Allocating a large percentage of loans and facilities in a single economic activity thereby exposing the banks to the risk of non-recovery of such loans in the event of failure of such activities; and

(iv) Granting loans on the basis of individual decisions instead of clear credit policies, thus falling into the dangers of the high proportion of good loans turning into bad loans.

2.3.2.1.2. Weaknesses of estimating the value of the guarantees provided by the clients

Chlch (2002) points out that lending institution may expose the non-performing loans due to the collateral provided by the borrowers, and hence there are a number of reasons related to the collateral that cause the non-performing loans. These reasons are:

(i) Overvaluation by the client of the guarantees provided to ensure the credit facilities are granted by the bank;
(ii) Difficulty of the conversion of collateral to liquidity;
(iii) The ownership of such collateral provided by the loan applicants; and
(iv) Such guarantees (collateral) could face damage or shortage in the quantity or value with the passage of time.

2.3.2.1.3. Incorrect calculations of risks (poor risk management)

Chlch (2002) and Laeven (1999) argue that the most profitable investments are the most risky ones. Therefore, loans considered as the highest investments (in terms of risks due to the difficulty of payback funds) achieve the highest profits. Thus there is an inverse relationship between profitability and risk. Practically, the majority of the banking sector, especially the commercial banks, gives great attention to profitability, which leads to the emergence of the risk of payback funds (non-performance loans) related to the loans management risk. So, there are a number of actions that indicate the weakness of risk management, which are:
(i) Bank's decision to finance the project fully thereby incurring the entire loss in the event of failure of the project;
(ii) Use of the loan amount by the client (borrower) prior to the completion of all the required documents to complete the loan file;
(iii) Withdrawal of the loan at one time, especially in the case of new customers;
(iv) Use the loan for purposes other than those allocated by the bank (lender); and
(v) Random decisions related to the grant credits by the creditor.

2.3.2.1.4. Deficiencies in the management of credit

Practically, lending decisions are the responsibility of the credit department. Any flaws in this department lead to unsound credit decisions, thus incurring the risk of the non-recovery of loans granted and thereby increasing the proportion of non-performing loans. Meltzer (1998), Basu (2003), Chlch (2002), and Saied (2000) mention that the reasons which lead to high bad debts are due to defects that appear in the management of credit are:

(i) Absence of the proper person in the right place,

(ii) The lack of comprehensive studies on the credit applicants (the financial analyses of the customer),

(iii) Lack of a clear credit policy, which leads to the exposure to the risk of bad debts,

(iv) The absence of a proper system to follow up the loans granted, which leads to the existence of a large amount of bad loans,

(v) Lack of the separation between the department of granting loans, and the department following up those loans,

(vi) Failure to follow up the collateral provided by the borrowers,

(vii) Lack of follow-up of the borrower's activities,

(viii) Granting additional funding without conducting sufficient checks on the activity of the client,

(ix) The full funding of the project by the bank (lender),

(x) The investment in one type of loan, which leads to an increase in the proportion of bad debt in the event of the failure of that kind of investment (loan),

(xi) Borrowing money from foreign financial institutions in the form of short-term loans, and granting these funds (short-term loans) in the form of long-term loans, which leads to the emergence of bad loans in the event of the refusal to renew these loans by the foreign financial institutions; and

(xii) Borrowing funds in the form of foreign currency and then granting these funds (loans) in the form of loans in local currency which leads to the emergence of the inflation problem which in turn leads to the increase in the level of bad loans, as a consequence of the decline of local currency value against other currencies.

2.3.2.2. Factors related to the client (borrower)

Clients are considered as one of the most important reasons that lead to the emergence of non-performing loans, and the reasons for this are mentioned by Chlch (2002), Nagm (2005), and Saied (2000) are the following:

(i) The lack of the client's management experience causing the absence of proper management of the project activities, leading to project failure and therefore default in the payment of loans,

(ii) The absence of sound financial management in order to provide the necessary funds for the project in a timely manner and at the lowest cost as well as weaknesses in identifying the different ways to make optimum use of those funds,

(iii) Weaknesses in the preparation of economic feasibility studies of projects to be financed by the bank,

(iv) Providing false information to the bank on the borrower and/or on the project which leads to wrong decisions by the bank regarding the granting of credit,

(v) Failure of the borrower to follow the advice and guidance provided by the lender,

(vi) Using the loan for other purposes,

(vii) In the event of the client's death, the inability of the heirs to pay his/her obligations which leads to emergence of non-performing loans,

(viii) The over-expansion of the projects which are financed by loans,

(ix) Bad intentions (moral hazard) of the client with respect to non-payment of the loan at the maturity date,

(x) Clients expand their borrowing from a number of lending institutions,

(xi) Client's bankrupt may lead to the loss of bank funds in the event of absence of adequate collateral,

(xii) The difficulty to recover the loans value in the event of the borrower fleeing abroad; and

(xiii) The weaknesses in the products being marketed related to the projects financed by the loans.

2.3.2.3. Factors related to the external conditions

In general, projects and their financing need a mechanism that can help them to adapt with the external environment. However, the international or domestic conditions and the surrounding natural environment are considered as some of the external factors which adversely or positively affect the projects and their financing. One of the core functions of managing projects is to predict a range of variables, for example, economic conditions, social or political conditions or the natural environment affecting the internal or external environment with the objective of mitigating uncertainties. Therefore, these variables are considered the most important factors relating to the safety of loans granted and the main reasons that increase the risk of defaulting loans. Albarassi (2005), Nagm (2005), and Saied (2000) mention that the external conditions which may lead to the emergence of non-performing loans consist of: (1) Local circumstances, (2) International circumstances and (3) Natural environmental circumstances.

2.3.2.3.1. Local circumstances can be the cause of non-performing loans due to the following reasons:

(i) Sudden changes in the state's monetary policy; this may lead to an increase in the volume of new projects as a result of the increase in the volume of loans,

(ii) The evolution of technology particularly those related to the process of production and information. Therefore this may lead to the emergence of non-performing loans due to the weaknesses of the projects financed by loans to accommodate these developments and their inability to compete with other projects, which use modern techniques in production and marketing. Consequently, this leads to a decrease in the value of profits as a result of lower sales volume and therefore, leads to the inability to repay the loan obligations,

(iii) Economic changes resulting from the change in legislation such as, taxation, customs, and interest rates. Such changes lead to the increase in the cost of the final product and consequently the increase in the selling price. Therefore, this impacts on the projects financed by loans as a result of the difficulty in marketing their products,

(iv) An increase in the prices of the goods due to higher operating input prices (raw materials), particularly due to the shortage of such materials which may result in difficulties in marketing these products,

(v) The increase in the number of similar projects, which may lead to the decrease of the prices of goods, produced by the businesses especially those financed by loans,

(vi) The difficulty in following up the loans which have been granted to the state sector, (vii) The absence of accurate information about local market conditions makes it difficult to identify the projects needed by the market which leads to the granting of loans indiscriminately,

(viii) A shortage of the raw materials necessary for production processes which leads to a shortfall in the final product adversely affecting profits and subsequently affecting the ability to repay the loan,

(ix) Lack of security and political stability of the state usually leads to the emergence of economic problems, including economic recession, which lead to the inability of clients to pay their obligations,

(x) The weaknesses of the control over the banks, especially with respect to wrong decisions by the bank staff in the granting of loans,

(xi) Changes in the social conditions of citizens, which leads them to stop buying certain goods causing a number of financial problems for the companies that produce these goods,

(xii) The absence of the appropriate legislation to protect the financial institutions against the clients' failure to pay their obligations; and

(xiii) The failure of some sectors, especially those owned by the state, for payment of its obligations towards a third party may result in the inability of these projects (the third party) for the payment of their obligations to banks.

2.3.2.3.2. International circumstances which may cause the bad loans problem due to:

(i) The adoption of some local industries, especially those financed by loans, to import raw materials and labour from other countries, which may result an increase in the prices of goods and services,

(ii) International laws which governs the movement of international trade may have certain consequences for import and/or export of some goods, which may create some of the economic and financial problems in the internal market, including the problem of non-performing loans; and

(iii) The fluctuations of the currency rates in the international markets will lead to the fluctuations in the price of local currency, hence, leading to the emergence of some of the economic and financial problems in the internal market including non-performing loans.

2.3.2.3.3. ***Natural environmental circumstances*** which refer to the external factors related to the natural environment surrounding the project, including natural disasters such as, earthquakes, volcanoes, floods, fires, etc. Furthermore, such natural risks have a negative impact on domestic and international market alike.

2.3.3. The Impacts of Non-performing Loans

It is fact that non-performing loans negatively affect clients (borrowers), banks (lenders) and the national economy as a whole (Chlch, 2002). Therefore, these parties (borrowers, lenders and the national economy) seek to avoid falling into the problem of non-performing loans due to the negative impacts to which they may be exposed. The impacts of non-performing loans are as follows:

2.3.3.1. The effects of non-performing loans on the client:

Achieving profits is considered as one of the most important objectives of the clients and non-performing loans are considered as one of the indicators regarding the poor performance of the projects in terms of achieving profits. Accordingly, the projects which face losses in many cases leads to the inability of their owners (borrowers) to pay their obligations and the inability of the lenders to recover their money.

Secondly, collateral is considered as part of the loan agreement and forms an essential basis for the loans granted by the financial institutions (lenders). Accordingly, the weakness of the borrowers to pay their debts leads to the loss of these guarantees (collateral), which in the end leads to the loss of part or all of these guarantees.

Thirdly, the reputation of the client to repay their obligations is considered as an important factor in terms of granting loans. Therefore, the borrowers who have a bad history in borrowing (stumble loans) will have difficulty to obtain new loans, particularly in the countries with modern banking systems.

2.3.3.2. The effects of non-performing loans on banks:

The impact of non-performing loans on the banks which provided the credit facility can be listed as follows:

(i) The inability of the lending institutions to recover their money granted in the form of loans leads to missed opportunities to reinvest the amounts of these loans (the opportunity cost). This is due to the inability of clients (borrowers) to pay their debt;
(ii) Non-performing loans lead to the inability of the banks (financial institutions) to achieve the expected benefits on the loans granted previously;
(iii) The increases in the bad debts often greatly adversely affect the process of creating deposits (creating money);
(iv) Non-performing loans lead the financial institutions (creditors) to conduct further studies on the faltering non-performing projects which leads to a waste of money, time and effort that could be used in other banking operations;
(v) In the case of the liquidation of non-performance projects, lending institutions often have to pay all or some of the liquidation process expenses. This results in decline of the total profits of the loans, which have been granted to the defaulting companies;
(vi) In the case of non-performing loans, lending institutions resort to conduct an auction to sell the guarantees (collateral) provided by the borrower. In many cases these guarantees may be sold by less than their real value making it difficult to collect the full value of the loans;
(vii) Increased administrative expenses relating to the payment of additional salaries as a result of hiring new staff in order to follow up loans, particularly, non-performing loans; and
(viii) The emergence of non-performing loans in the credit portfolios of some financial institutions gives a bad reputation for those institutions, thus leading to a decrease in their deposits volume (liquidity).

2.3.3.3. The effects of non-performing loans on the national economy as a whole

The impact of non-performing loans has impact on the national economy and in particular the larger the magnitude of such problem, the bigger is the negative impact on the society as can be seen from the recent financial crisis. Thus, the following is a list of various impact of non-performing loan on the national economy:

(i) The emergence of the problem of unemployment due to the demobilization of part or all of the staff who worked in the non-performing projects. This problem arises as a result of the inability of these projects to pay wages and salaries;

(ii) The emergence of inflation, which arises from the default of some of the projects in the production and service sectors, as this leads to the reduction of the aggregate supply of goods and services which in turn leads to an increase in prices;
(iii) Defaulting loans lead to a decline in the money volume of the financial institutions and consequently lead to higher interest rates on loans granted. This leads to the reluctance of investors to invest in loans, which creates to the further problem of inflation, and thus leads to a decline in the exchange rate of the local currency;
(iv) The emergence of the problem of bad loans leads to the suspension of some projects financed by these loans, leading to some loss of state revenues such as customs, taxes, insurance, etc.;
(v) In the event of some lending institutions ceasing granting new loans due to the emergence of a large number of non-performing loans, which negatively affects the process of providing new investment opportunities; and
(vi) The emergence of the problem of non-performing loans negatively affect the possibility of attracting foreign investments, due to the failure of the lending institutions to grant loans and credit facilities.

2.4. THEORETICAL EXPLANATION FOR NON-PERFORMING LOANS: A MICROECONOMICS PERSPECTIVE

There is no particular theoretical framework that emphasises that the problem of non-performing loans. Therefore, Perloff, (2007) states that the disappearance of the non-performing loans can only happen in the case of the equality between both the lender and the borrower with respect to the respective knowledge. Therefore, a number of concepts which are developed in microeconomics could be utilised in order to understand non-performing loans, as these theories make references to the knowledge of the parties and how they use this knowledge.

Over the years, with the major contribution of Akerlof (1971) mainly, moral hazard, adverse selection and the asymmetric information as concepts have been used to analyze the individual behaviour in the market in relation to having knowledge in transactions or exchanges. These concepts, therefore, can be extended to non-performing loans, as they are the result of a particular behavioural pattern sometimes emerging from moral hazard and asymmetric information on the side of borrower and adverse selection on the side of lenders. Therefore, these three concepts can be examined to give further meaning to and to understand behavioural aspects of non-performing loans as developed in microeconomics for exchanges.

According to Bebczuk (2003), the difficulty of determining whether the loan will be good or bad is related to the existence of the asymmetric information problem. Asymmetric information has significant effect regarding the decision of granting loans and credit facilities. This indicates the importance of asymmetric information for non-performing loans. Robinson (2001: 154) defines asymmetric information as "situations in which one party to a transaction has more information about the transaction than the other; such unequal information can lead to adverse selection". As a consequence, the appearance of the asymmetric information in the financial sector can result in lending institutions being exposed to the problem of non-performing loans as a result of wrong decisions with regard to the granting loans resulting from asymmetric information. This is because the borrower may have intentions of using the fund for undisclosed purposes or may attempt to hide information about the real financial situation of their companies. In such cases, asymmetric information will work in the interest of the borrower, which may result in non-performing loans with borrower having superiority in knowledge.

Gregoriou and Ali (2008) argue that asymmetric information can affect the relationship between lenders and borrowers as well as between risk buyers and sellers. Therefore, they pointed out that asymmetric information in some cases lead to non-sound decisions regarding granting loans and credit facilities. Therefore, Hermes and Lensink (1996) and Arestis and Sawyer (2006) argue that the lack of sufficient amount of information might create the fundamental problems of asymmetric information. Moreover, they mentioned that the problem of asymmetric information can be divided to two parts: adverse selection and moral hazards. On the other hand, regarding the lending sector, Hermes and Lensink, (1996) state that the clients (borrowers) have much better information than the credit providers (lenders) have about the potential returns and risks which related to the projects to be financed by loans and credit facilities.

To contextualize further, the first important economics related theoretical concept in relation to non-performing loans, as the articulation of asymmetric information, is the adverse selection issue. Wydick, (2008) notes that adverse selection problem occurs in the event that the lender's inability to distinguish between a high-risk borrower and a low-risk borrower is compromised. Adverse selection is an asymmetric information problem that occurs before the transaction occurs, in the form of granting a loan. On the other hand, Hafer (2005) points out that increasing the interest rate and required additional collateral lead the low risky clients to go elsewhere in order to obtain loans, while the high risky clients will accept the conditions at hand. In addition, (Varian, 2003) states that adverse selection refers to "situations where one side of the market can't observe the type or quality of the goods on other side of the market. For this reason it is sometimes called a hidden information problem". In addition, Arestis and Sawyer (2006) state that adverse selection refers to "cases when more creditworthy borrowers are drawn to other means of finance, usually at lower costs, leaving only the lesser creditworthy borrowers for the banking system".

On the other hand, a second theoretical concept developed in microeconomics as derived from asymmetric information is 'moral hazard', which can be applied to non-performing loans. In other words, moral hazard is an articulated form of asymmetric information. Wydick, (2008) points out that the moral hazard problem is a consequence of asymmetric information occurring after the transaction takes place (*i.e.* loan granted). In other words, the problem of moral hazard takes place because the lender is subject to the hazard that the borrower has incentives to engage in activities that are undesirable from the lenders' point of view. Moreover, Varian, (2003) states that the moral hazard refers to "situations where one side of the market can't observe the actions of the other. For this reason it is sometimes called a hidden action problem". Therefore, in relation to the financial sector, Arestis and Sawyer (2006) mentions that moral hazard refers to "banks being put in a position where the managers [borrowers] have no risk of loss yet a possibility of gain".

According to Rankin (1995), there are three types of information asymmetries that occur as a result of the transactions between the lender (creditor) and the borrower (client), which appear either individually or in combination. These types are:

i. The possibility of the borrowers indistinguishable in advance, which may lead the rise to the adverse selection;

ii. The inability of banks to observe the use of the funds, which granted in the form of loans and credit facilities. This may lead to the emergence of the problem of moral hazard with hidden action;

iii. The inability of banks to observe the revenue of the projects, which are financed by loans and credit facilities. This may lead to the emergence of the problem of moral hazard with hidden information (adverse selection).

Ultimately, it could be concluded that asymmetric information often leads to the emergence of the economic and financial problems especially non-performing loans in the credit market. Therefore, it could be said that the economic and financial markets will not operate as efficiently as they should, in the absence of sufficient information, related to both clients and the general environment.

Consequently, in terms of minimizing the emergence of asymmetric information, as in the form of adverse selection and moral hazard, Hafer (2005) suggests three methods, which are as follows:

i. Checking the historical information, which are related to the clients;
ii. Requiring adequate collateral, which can be utilised to recover the funds granted in advance, and
iii. Requiring a certain amount of net worth.

While this study does not attempt to delve into microeconomic theoretical frameworks of the working mechanism of credit markets and the impact of asymmetric information, these concepts shed further lights into our understanding of the non-performing loans. Therefore, in the discussion chapter (Chapter 10) a modest attempt will also be made to locate the results into these theoretical frameworks with the objective of giving further meaning to the findings.

2.5. SUMMARY

The main task of commercial banks is granting loans and various credit facilities. This chapter attempt to provide various explanations of loans based on expert definitions. After defining the different loans, the types of loans are presented and discussed in accordance with the appropriate literature. These types of loans are related to a number of categories: (1) length of loans (short-term loans, medium-term loans and long-term loans), (2) purpose of loans (consumer loans, commercial loans and real estate loans) and (3) secured and unsecured loans.

The written loans policy, which is used to achieve the banks' objectives and the importance of the lending policy in particular, is also discussed. In addition, this chapter has presented the implication of the basic factors for granting loans, which are called the six criteria a (six Cs). These factors are in the form of (1) capacity, (2) characters, (3) capital, (4) collateral, (5) economic conditions and (6) control. Furthermore, this chapter shows a number of information sources, which are used in order to collect the necessary information on the loans applicants. Also, it has presents the benefits of using the credit information.

A number of definitions of non-performing loans were also provided as well as presenting the reasons which lead to the emergence of non-performing loans related to the lender, borrower and the external and internal environment. Ultimately, this chapter has presented the negative effects of non-performing loans on the customer (borrower), the bank (lender) and the national economy.

Chapter 3

TRADITIONAL WAYS OF DETECTING AND DEALING WITH NON-PERFORMING LOANS

3.1. INTRODUCTION

Depository institutions are pivotal financial institutions specialising in the process of granting loans and credit facilities. Financial institutions seek to use their own funds in the credit-granting process, however, as in practice, private funds of the depositary institutions are not enough to meet the demands of lending. Accordingly, the financial institutions usually resort to use the depositor's funds in the order to meet the demands of loans and credit facilities (Kolb and Rodriguez, 1996).

Lending institutions seek to achieve efficient liquidity, and, hence, profitability. Therefore, these institutions tend to invest their own funds and the depositors' money in different types of loans, which are characterized by a low level of risks and ensuring access to a sufficient slice of the profits. The risks taken by the loans are related to the difficulty in the process of recovering the amount of the loans. Also, the credit risks are can negatively impact on the depositors' funds in the event of the absence of the possibility to withdraw part or all of the deposits in a timely manner. Accordingly, depositors prefer to deal with the financial institutions, which provide an adequate degree of safety in order to ensure the recovery of the deposits at the appropriate time and place (Hubbard, 2000).

Generally, non-performing loans represent one of the very serious problems faced by the financial institutions in general, and the lending institutions in particular with regards to the process of granting credit and paying back process. From a practical angle there are a number of basic elements related to credit risk. These elements are represented by the main parts of the lending process: lender (bank), borrower (client) and credit (loan). Independent study on each component of the credit risks will lead to obtaining sufficient information on the loan status in the future. Therefore, having such information will allow proper decisions to be made on the process of granting credit. In addition, because non-performing loans are considered as one of the main credit risk elements, lending institutions seek to provide the capable tools to measure the credit risk (Salas and Saurina, 2002).

This chapter presents the traditional methods used by the financial institutions to avoid the exposure of non-performing loans such as financial analysis techniques which can be used as appropriate tools to avoid the emergence or treat non-performing loans. This is followed by a review of a number of previous studies, which have been conducted in other countries in order to identify the possible explanation and a credible rationale behind the appearance of non-performing loans and to determine the appropriate ways which may be used to address them.

3.2. TRADITIONAL WAYS OF DETECTING AND DEALING WITH NON-PERFORMING LOANS

This section aims to present the traditional methods used to detect and deal with non-performing loans. While more sophisticated methods are available, taking into the nature of Libyan commercial banking, which constitutes the case for this study, traditional methods are more appropriate to utilise.

3.2.1. Financial Analysis

Lending institutions seek to find the best ways to lower risk. Included are the aims of the lending institutions to generate the highest proportion of profitability with the appropriate level of liquidity. Generally, credit management of the lending institutions use a number of financial analysis methods in order of interpret the financial position on these institutions (Rees, 1995).

Practically, financial analysis is considered as an important tool, which is used by internal and external parties in order to determine the performance levels of lending and borrowing institutions (Ramadan and Jouda, 1996). Literature indicates that there are a number of parties who use the financial analysis methods. Those parties are:

a. The Bank Senior Management

Financial analysis is considered as one of the important tools used by the bank senior management in the process of planning and control as well developing the future plans of the bank. Furthermore, it can be determining the levels of success which have been achieved in the light of these plans, particularly, those related to liquidity and profitability.

b. Central Bank

The main function of central banks usually named as the Bank of Government is to control the credits which are granted by other banks. Financial analysis is considered as one of the control tools used by the Central Bank in order to control other banks operating in the state. Accordingly, the consequences of using financial analysis in the lending institutions enables the Central Bank to ensure that other banks are committed to the principles and regulations which have been created. The principles and rules prescribed by the Central Bank to control other banks are in the form of the legal reserve ratios, the liquidity ratio and the ratio of discount and re-discount.

c. The Shareholders

Financial analysis provides a clear picture on the results of the bank during a period of time. Hence, these findings are presented to assist the shareholders to know the results of their financial investments and to help potential investors to take proper investment decisions.

d. The Depositors

As the majority of the funds used by lending institutions are the depositors' funds, the banks seek to provide adequate liquidity in order to meet the cash withdrawals especially those that occur suddenly. Financial analysis is considered as an appropriate method used by the depositors in order to know the banks' ability to meet the payment of the deposits value with the clients' requests. The results of financial analysis are to show the ability of the bank to meet its obligations to depositors as well as showing the risks against the bank in the past or potential exposure to those risks in the future.

3.2.2. Financial Analysis Tools

Penman (2003) mentions that financial institutions used a number of tools in order to measure and identify their previous financial position. The main task of these tools is to enable the financial institutions to conduct a financial analysis on their financial statements such as balance sheets, income account and profit and loss account. Ross et al. (2000) and Hempel *et al.* (1994) and Gibson (2009) mention that financial analysis is normally in the form of vertical and horizontal analysis (common-size analysis) and financial ratios analysis. The following are more detailed regarding the above:

3.2.2.1. Vertical and horizontal analysis (Common-Size Analysis)

These types of analyses lead to measure the changes in the items contained in the financial statements, which are relevant to the financial institutions (the balance sheets, income account and profit and loss account) (Gibson, 2009). These types of analyses are as follows:

3.2.2.1.1. Vertical Analysis

Desselle and Zgarrick (2004) argue that this type of analysis is aimed to compare each item contained in the financial statement, which is related to the financial institution with the other items on the same statement. Hence, the result of vertical analysis shows the proportion of each item contained in the financial statement to all items contained in the same statement for the same period (Ramadan and Jouda, 1996).

3.2.2.1.2 Horizontal Analysis

Desselle and Zgarrick (2004) mention that the horizontal analysis is used to compare each item contained in the financial statements of the bank in a given year with the same items contained in the financial statements of the bank in the previous years. Therefore, the results achieved by using the horizontal analysis give a clear picture of the changes in the items, which are reflected in the financial statements of banks. These changes can be either an increase or decrease in the existing items of the financial statement for a particular year with the same items appearing in other years (Hanafi and Abukhf, 1994).

3.2.2.2. Financial ratio analysis

Chadwick (2001) states that financial ratio analysis is considered as a measure in order to determine the financial positions of the institutions. Also, O'Regan (2001) and (Melville, 2008) mention that the technique of financial ratio analysis is considered as the most common methods used by different parties in order to take appropriate decisions. On the other hand, some of those ratios are imposed by the central banks (legal ratios), and other ratios are determined by the financial institutions. Also, these financial ratios differ from one institute to another, depending on the circumstances surrounding the financial situation (Salmi and Martikainen, 1994). These ratios are:

3.2.1.2.1. Legal ratios

In the banking environment there are a number of financial ratios which are imposed by the Central Bank in order to regulate other banks operating within the nation state. Through the use of the legal ratios the Central Bank will be able to control the volume of the liquidity and the deposits related to the banking system (Hindi, 2006; Hanafi and Abukhf, 1994). These legal ratios are in the form of the following:

(i) **The Legal Liquidity Ratio:** Central banks aim to identify the volume of liquidity in other banks by using legal liquidity ratio. This leads the central banks to ensure the availability of the funds, which it needs to meet the requirements for cash withdrawal and/or granting loans and credit facilities by the banks, especially the commercial banks. Thus, legally, the banks are bound to maintain the liquidity volume identified by the Central Bank. Moreover, liquidity volume is cash balances in the bank, cash balances deposited in other banks and the cash balances deposited in the Central Bank. As presented by Hindi (2006: 412) the legal liquidity ratio is calculated as follows:

$$\text{Legal liquidity ratio} = \frac{\text{Total cash} + \text{Quasi-cash assets}}{\text{Total deposits}}$$

(ii) The Legal Reserve Ratio (Cash Reserve): This ratio is considered as one of the monetary policy methods used by the central banks in order to control the credit volume in the financial system. Legally, banks are obliged to deposit part of their clients' deposits in the Central Bank as a reserve in order to control the volume of lending and moreover, to meet any unexpected or sudden situation causally in the form of cash withdrawals or financial crises which those banks may face. Hindi (2006: 411) and Hanafi and Abukhf (1994: 208) mention that the legal reserves ratio is:

$$\text{Legal reserve ratio} = \frac{\text{Cash balances in the central bank}}{\text{Total deposits}}$$

Where total deposits = Clients' deposits + banks' deposits + borrowed funds

3.2.2.2.2. Liquidity ratios

(Melville, 2008: 349) defines liquidity ratios as "as measure of the ability of the business to pay its debts as they fall due". Practically, the investment in the loans granted is considered as one of the most important tasks related to the lending institutions, especially for the commercial banks, in order to achieve profits. On the other hand, the majority of the funds, used by the lending institutions in the loans granting process, are owned by the depositors. Therefore, Kolb and Rodriguez (1996) states that the commercial banks give their highest attention level to liquidity management in order to achieve the goals of liquidity and profitability by investing sufficient liquidity, and meeting a sudden withdrawal of cash by the depositors. The liquidity ratios are:

(i)Cash-to-Current Deposits Ratio: Selvavinayagam (1995) mentions that the aim of using this type of ratio is to determine the available cash in the bank coffers, which shows the ability of the bank to meet the requests of the depositors to withdraw their current deposits. Ramadan and Jouda (1996: 273) present the ratio of cash-to-current deposits as following:

$$\text{Cash-to-current deposits ratio} = \frac{\text{Cash}}{\text{Current deposits}}$$

(ii) Cash-to-Total Deposits Ratio: The main aim of using this type of ratios is to highlight the ability of the banks to cover the cash withdrawal applications, which are related to all kinds of deposits (demand deposits, time deposits, saving accounts, etc.) (Ramadan and Jouda, 1996: 273). The ratio of cash-to-total deposits is expressed in the following format:

$$\text{Cash-to-total deposits ratio} = \frac{\text{Cash}}{\text{Total deposits}}$$

(iii)Short-term Financial Investments to Total Deposits Ratio: The short-term financial investments are those investments that are related to the short-term assets, which can easily be converted into cash when needed. Therefore, this type of ratio reflects the ability of short-term investments to face the withdrawal requests, with regards to all types of deposits (total deposits) (Ramadan and Jouda, 1996: 273). This ratio is calculated through following formula:

$$\text{Short-term financial investments to total deposits ratio} = \frac{\text{Short-term financial investments}}{\text{Total deposits}}$$

3.2.2.2.3. Capital Adequacy Ratio (CAR)

Briefly, a bank's capital is considered as a key tool to face any risk that the bank might be exposed. Moreover, this type of ratio is considered as one of the main elements related to the depositors' safety. Therefore, depositors seek to select those banks, which have a high rate of capital adequacy, although this kind of ratio varies from bank to bank depending on the size of the bank and the region, which it is serving. The increase in the size of banks, or the increase in the size of its operations, needs to increase the proportion of capital adequacy (Greuning, 2007); (Hanafi and Abukhf, 1994). The capital adequacy ratio is:

(i)Equity Capital to Total Assets Ratio: Banks use this type of ratio to determine the extent of adoption to which they well adopt equity capital in order to finance the assets (fixed assets and current assets) (Gibson, 2009: 508). This ratio is:

$$\text{Equity capital to total assets ratio} = \frac{\text{Average Equity}}{\text{Average total assets}}$$

3.2.2.2.4. The activity ratios

Ramadan and Jouda (1996) argue that this type of ratio is considered as one of the important tools, which are used to assess the activity of the available funds, which are in the form of equity and deposits of various kinds. Moreover, banks typically use the available funds in various investments such as loans, securities portfolios, discount of securities trading, etc. These ratios are the following:

(i) Employment Rate for the Available Funds: This type of ratio is used to assess the extent of using the available funds and the equity capital in the process of granting credit and other investments (Ramadan and Jouda, 1996: 276). This ratio is in the form of:

$$\text{Employment rate for the available funds ratio} = \frac{\text{Credits + investment}}{\text{Total deposits + equity}}$$

(ii) Investment to Deposits Ratio: This type of financial ratio is used in order to measure the deposits volumes, which have been invested in the form of non-credit investments (Ramadan and Jouda, 1996: 276), and it is calculated as:

$$\text{Investment to deposits ratio} = \frac{\text{Investments}}{\text{Total deposits}}$$

3.2.2.2.5. The profitability ratios

This type of financial ratio aims to measure the profits, which have been generated in the past. Also, the institutions seek to determine the reasons and the elements that have led to the achievement of these profits (Melville, 2008; Penman, (2003). Therefore, the institutions use a number of financial ratios related to profitability, which are in the form of:

(i) **Net Profit Margin:** This ratio is used to measure the net profits of the total income after deducting taxes (Foster, 1986: 67; Ross *et al.,* 2000: 67), which is calculated in the following fashion:

$$\text{Net margin after tax ratio} = \frac{\text{Net income}}{\text{Revenues}}$$

(ii) **Assets Utilization Ratio:** Hempel et al. (1994: 66) mention that assets utilization ratio reflects the level of using of the total assets in order to generate revenue, which is calculated in the following form:

$$\text{Asset utilization ratio} = \frac{\text{Revenues}}{\text{Total assets}}$$

(iii)Return on Assets: This ratio aims to identify the volume of net income, which is generated by using total assets. On the other hand, the term of net income reflects the total income after deducting taxes. In addition, Foster, (1986: 67); Hempel *et al.* (1994: 66) and Ross *et al.* (2000: 65) have mentioned that in order to give accurate information, it must make sure that the assets value, which have been used in this analysis, represents the true value of these assets. This ratio is calculated by the following formula:

$$\text{Return on assets ratio} = \frac{\text{Net income}}{\text{Total assets}}$$

(iv)Return on Equity Ratio: Hempel et al. (1994: 66); Dhanuskodi *et al.* (2007: internet edition) and Ross *et al.* (2000: 65) states that the aim of using this type of ratio is to determine the percentage of net income which has generated by using the equity. This ratio is:

$$\text{Return on equity ratio} = \frac{\text{Net income}}{\text{Total equity}}$$

The techniques that are mentioned above are used by most financial institutions, especially the institutions of the banking sector. Accordingly, the central bank can control the other banks through the imposition of legal ratios on the other banks operating in the financial system. Moreover, the other banks do use a number of financial ratios which help them to reach their financial goals such as, liquidity, capital adequacy, profitability and activity.

According to Saied (2000), the results, which are obtained by using the financial ratios, are not enough to give a clear picture on the bank's financial position. This indicates that there is an affirmation of the need to analyze the main elements, which have to be taken into account in the case of studying the loan applications. Accordingly, these elements are represented in the form of capacity, character, capital (cash), collateral and the conditions. Moreover, the main goal of conducting the financial analysis on the elements related to the borrowers is to enable the banks to identify the credit risks.

3.2.3. Measuring Credit Risks Related to the Clients and Banks

As explained, the results of the financial analysis are considered as an important tool, which is used to select the best types of loans. By selecting the best types of loans, lending institutions can achieve high levels of profitability while ensuring the recovery of their funds granted in the form of loans and credit facilities. Moreover, these results can be used by central banks, lending institutions, depositors and loan applicants. As pointed out by Ramadan and Jouda (1996), the main reason for using the result of financial analysis is to determine the type and the extent of the risks that might arise

3.2.3.1. Risks related to the clients

The main task for loans management is to select the best loan applicants in order to assure that the future of the loans are secure when collection of the loans takes place. According to Saied (2000), there are a number of financial ratios, which can be used to measure the basic elements related to the borrower. Accordingly, he mentions that the lending institutions can identify the potential risks through the analysis of the elements related to each individual borrower separately. Saied (2000) also mentions a number of elements, which are linked with a number of financial ratios. These elements and financial ratios are presented in the proceeding section.

3.2.3.1.1. Capacity

One of the elements which must be taken into account by the bank before the issuance of the lending decision is the ability of the borrowers to pay back their obligations (the principal amount of loan and the interest) on time Gallati (2003). Saied (2000) claims that the financial ratios that can be used to measure the ability of the borrowers to pay back their debts are, as described below:

(i) Current Ratio: This ratio shows the borrowers' ability to meet their short-term obligations. Therefore, current ratio aims to show a number of units that can be used from the current assets in order to pay on one unit of current liabilities (Weetman, 2006: 340; Melville, 2008: 353; Bamber *et al.*, 2008: 761 and Atrill, 2006: 78). This ratio is calculated through following formula:

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

(ii) Liquidity Ratio: This ratio reflects the possibility of borrowers to repay their financial obligations by using the available cash without the need to sell some of the assets. On the other hand, the quick sale of the assets leads to a reduction in the prices of those assets, which consequently lead to the exposure to financial losses (Proctor, 2009: 52; Gillespie *et al.* 2003: 351). Liquidity ratio is calculated as:

$$\text{Liquidity ratio} = \frac{\text{Current assets - Stock}}{\text{Current liabilities}}$$

(iii) Quick Ratio: Quick ratio indicates the financial efficiency of the borrowers, and it is considered as one of the indicators, which is related to the lending risks (Saied (2000). Nevertheless, Glantz (2003: 111) mentions that this ratio reflects the ability of borrowers to repay their obligations by using the available cash without having to sell their stocks. The quick ratio is:

$$\text{Quick liquidity ratio} = \frac{\text{Cash and accounts receivable}}{\text{Current liabilities}}$$

(iv)Inventory Turnover Ratio: One of the important elements which are used in order to identify the efficiency marketing level of the institutions is the rapid inventory turnover. Therefore, the increase in the inventory turnover rate shows the high efficiency of the institutions regarding the investment of their funds (Samuels *et* *al.* 1995). Keown, (2008: 102) and Palepu, (2000: 9-11) presents the ratio of inventory turnover as:

$$\text{Inventory turnover ratio} = \frac{\text{Cost of goods sold}}{\text{Inventory}}$$

(v) Total Current Assets Turnover Ratio: This ratio represents the projects' ability in order to invest their current assets (Elliott, 2008: 672). This ratio is calculated as:

$$\text{Total current assets turnover ratio} = \frac{\text{Net sales}}{\text{Total current assets}}$$

(vi) Fixed Assets Turnover Ratio: This ratio represents the ability of the institutions to invest their fixed assets (Mott, 1991: 121; Palepu, 2000: 9-11 and Glantz, 2003: 112). This ratio is calculated through following formula:

$$\text{Fixed assets turnover ratio} = \frac{\text{Sales}}{\text{Fixed assets}}$$

(vii)Total Assets Usage Ratio: This ratio represents the ability of the institutions to invest their total assets (Weetman, 2003: 366). This ratio is:

$$\text{Total assets usage ratio} = \frac{\text{Turnover}}{\text{Total assets}}$$

Thus, the ratios of current assets turnover, fixed assets turnover and total assets turnover reflect the ability of the institutions to optimize the use of these assets. Moreover, the optimal utilization of those assets leads to the increase in the level of previous ratios.

3.2.3.1.2. Character

This element reflects the willingness of the borrowers to repay their prior obligations (Gallati, 2003; Banjerjee 2005). Therefore, the following ratio may be used to measure the risks of lending that resulted from the nature of the client, with respect to the payment of previous commitments. This ratio is presented in the following section:

Debtors Turnover Ratio: This ratio reflects the ability of the clients to repay the obligations, which belong to the creditors. Accordingly, the survival of the large quantities of the stocks usually gives a bad indication regarding the ability of borrowers to repay their future obligations (Soundarapandian, 2004: 241). Debtors' turnover ratio is calculated as following:

$$\text{Debtors turnover ratio} = \frac{\text{Credit Sales}}{\text{Average Debtors}}$$

3.2.3.1.3. Capital

This element shows the participation of the capital in the various financing operations. Thus, the rise in the ratios related to the capital is considered as a proof of the existence of a high level of security, which is related to the lending institutions. Furthermore, the rises of these proportions lead to encourage the lending institutions to take lending decisions (Lander, 2005). There are a number of financial ratios, which are used to measure the role of the capital, regarding the funding operations. These ratios are:

(i) Debt to Equity Ratio: This indicator is used as the measurement of the extent of using the equity in order to finance the institution's total debts. Therefore, the decrease in the level of this ratio is considered as an indicator to increase the project's ability to rely on its funds for financing activities purposes (Chadwick, 2001: 106; Ross *et al.*, 2000: 60 and Rao, 1989: 229). The formula of this ration is:

$$\text{Debt to equity ratio} = \frac{\text{Total debts}}{\text{Total equity}}$$

(ii) Fixed Asset to Equity Ratio: Gildersleeve (1999: 92) mentions that this ratio is used to measure the volume of the equity, which is employed in order to finance the fixed assets. Therefore, the increase in this indicator is considered as an indication of the low level of loans, which are employed to finance the various activities. This indicator is:

$$\text{Fixed assets-to equity ratio} = \frac{\text{Fixed assets}}{\text{Total equity}}$$

(iii) Debt to Total Assets Ratio: Gallagher and Andrew (2007: 95); Mott (1991: 127); O'Regan (2001: 241) and Penman (2003: 686) mention that this ratio aims to identify the percentage of the assets that have been financed by debts. Accordingly, the increase in this ratio is considered as a bad indicator of the project. Therefore, this indicator is an evidence of the possibility of a non-payment risk regarding the previous and/or the new loans. This ratio is:

$$\text{Debt to total assets ratio} = \frac{\text{Total debt}}{\text{Total assets}}$$

3.2.3.1.4. Collateral

Saied (2000) mentioned that there are two kinds of guarantees provided by the loans applicants. Such collateral are usually in the form of specific guarantees values and/or unspecified value. Therefore, in the event of the specific collateral value, the banks (lenders) conduct a comparison between those guarantees with the amount of the loan. On the other hand, in the event that the guarantees provided in the form of the company's reputation leads to use the same financial ratios, which are used to measure the capital.

3.2.3.1.5. Conditions

The circumstances surrounding the project are considered as one of the element, which affect the project either negatively or positively (Hindi, 2006). Accordingly, by using the indicators to measure the surrounding conditions they can be used to identify whether the project is in the situation of recovery or recession. The main indicators for measuring the surrounding conditions are figured as shown below:

(i) **Profit Margin Ratio:** Ross *et al.* (2000: 65); Gallagher and Andrew (2007: 92) and Walton (2000: 155) mention that this indicator is considered as a measure of the income value, which is generated from the products sale. Accordingly, the rises in the value of this indicator gives evidence of the existence of the recovery in the project. This ratio is calculated as follows:

$$\text{Profit margin ratio} = \frac{\text{Net income}}{\text{Sales}}$$

(ii) **Return on Equity Ratio:** Foster (1986: 68) and Ross *et al.* (2000: 65) argue that this ratio aims to measure the profits, which have been earned by the process of investing the equities. Therefore, the increase in the value of this indicator means that the project has achieved profits, thus reducing the risks of granting new loans and/or renews the previous loans to that project. This ratio is:

$$\text{Return on equity ratio} = \frac{\text{Net income}}{\text{Total equity}}$$

3.2.3.2. Risks related to the banks

Kuzemin and Lyashenko (2007) mention that the most important objectives of the banks are to achieve the principle of profitability and liquidity. On the other hand, banks face a number of risks, which have a direct impact on the goals of liquidity and profitability. Therefore, the banks seek to use a number of financial indicators in order to identify and measure the risks they face. According to Hempel *et al.* (1994), there are a number of risks faced by banks, which are in the form of liquidity risk, interest rate risk, capital risk and the credit risk. Moreover, they have identified the financial ratio, which are used to measure such risks. These ratios are presented in the following section:

3.2.3.2.1. Liquidity Risk

Kroszner (2008) mentions that banks exposed to liquidity risk regarding depositors' transactions in the form of deposits, withdrawal or respond to requests for lending. In addition, Gatev *et al.* (2006) argue that the emergence of liquidity risk is created due to the difficulty to convert some assets into cash, especially the short-term investments, such as short-term securities, short-term loans, etc. The following indicator is used by banks in order to measure liquidity risk (Hempel *et al.* 1994: 66 – 67):

$$\text{Liquidity risk ratio} = \frac{\text{Short-term securities}}{\text{Deposits}}$$

3.2.3.2.2. Interest Rate Risk

Hanafi and Abukhf (1994) mention that the interest rate risk is that which arises from the fluctuations in the rate of income as a result of using the assets and/or the liabilities in various investments. On the other hand, the mean of the assets and the liabilities, which are shown in the following equation, are the sensitive assets and the sensitive liabilities. However, the mean of the sensitive assets and the sensitive liabilities are these assets and liabilities, which are affected by the fluctuations of the interest rates. According to Hempel *et al.* (1994: 66 - 67), the optimal rate of this indicator should be close to 1.0. The ratio of interest rate risk is calculated as:

$$\text{Interest rate risk} = \frac{\text{Interest-sensitive assets}}{\text{Interest-sensitive liabilities}}$$

3.2.3.2.3. Capital Risk

Eichberger and Summer (2004) argue that the capital is considered as the final source and is used by the banks in order to face the decline in the assets value. Accordingly, the banks' capital could be used to meet the creditors and/or depositors demands in the event of the decline of the assets value. Hanafi and Abukhf (1994: 273 – 276) and Hempel *et al.* (1994: 66 - 68) mention that if a bank's ratio of the capital-to-assets is 10 per cent, this means that the bank is able to assume the decline of the assets value more than other banks with 5 per cent ratio. The capital risk ratio is figured as shown below:

$$\text{Capital risk ratio} = \frac{\text{Capital}}{\text{Risk assets}}$$

3.2.3.2.4. Credit Risk

Despite the methods that have been mentioned above, which are used by banks in order to take good decisions related to the process of granting loans, loans investment is not usually risk-free. Moreover, loan risks often are in the form of non-recovery of the loan value according to (Hempel *et al.* 1994). Furthermore, Glantz (2003: 47) provides a definition of credit risk as "the potential that a bank borrower or counterparty will fail to meet its obligations in accordance with agreed terms". Accordingly, banks seek to conduct studies on loans, which are granted in the past, to assess the risk level which they may be exposed to. These risks are due to the non-recovery of some loans' value. Hempel *et al.* (1994: 67 - 68) present the credit risks ratio as:

$$\text{Credit risks ratio} = \frac{\text{Medium term loans}}{\text{Assets}}$$

3.2.4. Non-performing Loans Ratios

Since this study specialises in the problem of non-performing loans, there are a number of ratios, which are utilised to measure them. According to Grier, (2007) non-performing loans ratios are used to identify the level of non-performing loans in the loan portfolio. Therefore, it should be noted that a higher percentage of this ratio leads to the need of providing more funds to support the portfolio of the bank. These ratios are:

3.2.4.1. Non-performing Loan to Total Loans

Grier, (2007:25) mentioned that this ratio used in order to identify the level of non-performing loans with the total loans. This ratio calculated in the following fashion:

$$\text{Non-performing loan ratio} = \frac{\text{Non-performing loans}}{\text{Total loans}}$$

3.2.4.2. Non-performing Loan to Total Assets

According to Grier (2007:25), this ratio used to identify the level of non-performing loans with the total assets. This ratio is in the following form:

$$\text{Non-performing loan ratio} = \frac{\text{Non-performing loans}}{\text{Total assets}}$$

3.2.4.3. Non-performing loan coverage ratio

Grier, (2007:25) mentioned that this ratio is used in order to measure the ability of the loan loss reserve to cover non-performing loans. This ratio is figured as shown below:

$$\text{Non-performing loan coverage ratio} = \frac{\text{Reserve for loan losses}}{\text{Non-performing loans}}$$

3.2.5. Future Forecasting Method

Experts have proved that the success of any organization (whether services, productivity or business) primarily depends on the ability and success of its management. The ability of the managers is defined mainly on their skills in the process of successful decision-making. Therefore, forecasting methodology is used by individuals and institutions to predict the future in order to ensure the achievement of their organisational goals as required (Hirschet *et al.* 1995).

Schniederjans and Cao (2002: 144) define forecasting as "a process of predicting what will occur in the future". They mention that forecasting is considered as an uncertain method for the process of decision-taking may be exposed to some risks. However, successful forecasting is related to a good level of managerial skills, in particularly with regard to the use of forecasting methodology. Thus, successful forecasting techniques usually entail expenses, which may be high in some cases. Therefore, the decisions-makers seek to find a balance between the costs of, and the future benefits obtained by using the forecasting methodology (Morden, 2007).

Hirschey *et al.* (1995: 370) mentioned that there are a number of techniques, which are used in the forecasting process. Accordingly, they divide the forecasting techniques into:

- Qualitative Analyses, which is an intuitive judgmental approach to forecasting based on opinion;
- Trend Analyses and Projection, which aims at forecasting the future of economic variables based on historical patterns.
- Econometric Methods, which use economic theory and mathematical and statistical tools to forecast economic relations;
- Input-output Analyses, is a forecasting method that shows the interrelated nature of economic data.

3.3. INSTITUTIONAL POLICIES TO ADDRESS NON-PERFORMING LOANS

From the presentation so far, it can be noted that the economic systems in general and the banking sector in particular may suffer from financial difficulties because of their exposure to the problematic issue of non-performing loans. The financial institutions seek to find appropriate ways to address this problem. In accordance with the previous studies mentioned below, it can be seen that there are a number of steps that should be followed by banks in order to avoid the emergence of non-performing loans. These steps are:

(1) Appointing the right person in the right place,

(2) Conducting comprehensive economic studies on the projects financed by loans, and

(3) Using modern technology for the various operations of banks, especially those related to the credit departments.

Furthermore, previous studies indicate that there are several methods, which can be used to address the problem of non-performing loans. These methods are:

(i) Follow the collateralization (securitization) method to ensure that the bank's funds which have been granted in the form of loans are secured as the collateralization method is considered as the safety valve of the banks in order to collect their money. This works by allowing the bank to dispose of the assets provided by the borrowers in the form of collateral in case of the faltering of the borrowers to repay their loans.

(ii) Using a method of client support in order to ensure the recovery of the lender's money granted in the form of loans and credit facilities. This method consists of a number of ways shown below:

- Client flotation through debt rescheduling aiming at waiving a part of the accrued interest and/or reduce the interest rate.
- Debts capitalization and/or provide financial and marketing consultancy to the clients of non-performing projects.
- Reviving projects by granting additional amounts of money in the form of additional loans. This method is also called cash support or cash injection.
- The integration of non-performing projects into other successful projects.
- Write-off (cancellation) of non-performing loans.

(iii) The establishment of institutions that specializing in the purchase of non-performing loans.

(iv) Lending institutions resorting to liquidating the non-performing projects after ascertaining the inability of borrowers to repay their obligations. However, this method is considered as the last resort used by banks in order to recover their money.

3.4. EXAMINING CASE STUDIES

This section aims to presents a number of case studies aiming at identifying non-performing loans and the factors leading to non-performing loans in a number of countries. This is expected to provide an understanding as to various techniques utilised within the financial systems.

3.4.1. A Proposal for the Japanese Non-Performing Loans Problem: Securitization as a Solution

Herr and Miyazaki (1999) explain that the Japanese banks had suffered from the problem of non-performing loans; and consequently how they had to write-off their non-performing loans in March 1995, a decision which had been taken fifteen years after the process of writing off bad loans in the U.S. banks in early 1980. Sumitomo Bank was the first Japanese bank which had written-off non-performing loans. Herr and Miyazaki (1999) mention that there were three main reasons that led to the reluctance of Japanese banks to take the decision to write-off non-performing loans. They are:

(1) The Ministry of Finance's indecisiveness in recognising and addressing the non-performing loans problem,

(2) The Japanese tax system does not permit tax deductions for write-offs and,

(3) Insufficient capital for banks to write-off the loans.

On the other hand, the authors explained that a number of Japanese academics had participated in several projects that sought to change the tax laws to permit the tax deductions for write-offs. In 1995 the Central Bank of Japan dealt with the third point by increasing the money supply which led to a decline in the interest rates, which in turn led to an increase in the volume of loans granted and resulted to an increase in the net profits. Thus, most Japanese banks acquired sufficient profits in order to write-off bad loans.

This resulted in the Japanese government issuing a new law that allowed it to purchase the preferred shares of the Japanese banks through the use of public funds. This step led the Japanese banks to obtain sufficient amounts of money to be used for the cancellation of non-performing loans. Subsequently, the Japanese government established a new agency called the Resolution and Collection Corporation (RCC), which is used to purchase non-performing loans.

Despite the solutions, which had been initiated by the Japanese government in order to dispose of bad loans, the researchers believe that the securitization (collateralization) is the most important method to eliminate the problem of non-performing loans that have emerged in the Japanese banks. Japanese banks mainly work in order to reduce non-performing loans through the collateralized loan obligations (CLOs). Herr and Miyazaki (1999) mention that the reduction of bad loans leads to the reduction of funds used as reserve to face the risk of non-performing loans. Hence, through the use of the securitization method it can transform these risks arising from the defaulting loans (non-performing loans) to the borrowers (investors) rather than the lenders (banks).

3.4.2. Non-performing Loans in Korea's Financial Sector and Restructuring Costs

Kwon and Nam (1999) mention that the Korean financial sector faced a financial problem particularly in the banking sector and the authors presented a number of positive achievements by the Korean Government in order to treat the weaknesses of the Korean financial sector. The actions taken by the Korean Government are: first, purchasing the non-performing assets in order to force the insolvent financial institutions out of the market. Second, inject funds into the severely undercapitalised banks by using the fiscal support package. As a result, the study mentions that these measures did not lead to create a sound financial system.

Kwon and Nam (1999) aim to study the loans granted by the Korean financial institutions especially the banking sector (commercial and investment). In addition, they mention that those loans have been granted to a number of corporations that have been exposed to the problem of non-performing loans. The paper thus investigates the reasons that led to non-performing loans, which also shows the negative impact of non-performing loans on the banking system in particular and/or the Korean financial sector in general. Therefore, Kwon and Nam (1999: 2) define non-performing loans as "loans and credits extended to corporations with interest coverage ratio (ICR) less than 100 per cent. ICR is commonly defined as the ratio of earnings before interest and taxes (EBIT) to interest expense".

Kwon and Nam (1999) also mention that there is a link between the interest rates and the emergence of non-performing loans. As a result, they argue that there is an inverse relationship between the interest rates and the profit size. Therefore, the high level of the interest rate will lead to the decrease in the volume of the borrower's profitability. Thus, there is an inverse correlation between the profitability level and the size of bad loans. As a result, the rise in the borrower's profitability level leads to the decrease in the volume of non-performing loans. Therefore, it can be said that there is a direct relationship between interest rate and the volume of non-performing loans, which means that the increase in the interest rate will lead to the increase in the volume of non-performing loans. In short, the study explains that the volume of bad loans depends on a number of variables which are: Low corporate profitability; high interest rates; and high debt value.

The researchers conducted a practical sensitivity test in order to be aware of the volume of non-performing loans. Moreover, they tried to find the best ways to reduce non-performing loans. The study shows that the reduction of the debt proportion through the sale of assets or the conversion of debt into shares leads to debt relief, and therefore a decline in the volume of non-performing loans. In addition, the researchers stressed that the most important reason which lead to the increase in the volume of non-performing loans in the Korean corporations was the increase in the loan interest rate, which lead to the decrease in the profitability percentage. The study, hence, is focused on two fundamentals for the emergence of non-performing loans, which are in the form of profitability and interest rates.

As a result, the study confirms that the reduction of interest rates lead to an increase in corporate profits and thus reduce the volume of non-performing loans. Furthermore, Kwon and Nam (1999: 20-22) reached a number of conclusions which are:

"Deflationary macroeconomic policy is the sole option in the absence of plausible alternatives, Debt restructuring by creditor financial institutions is necessary, given that the effects of cost reduction from the lower interest rates and slimming-down efforts have proven insufficient, additional public resources may be necessary even after the appropriate cost allocation and inducement of foreign capital and skills still remain a high priority".

In conclusion, the researchers believe that they conducted a realistic assessment of the volume of non-performing loans, especially under the persisting surrounding crisis. As a result, they mentioned that the loans that had been granted by the Korean commercial banks were classified by the Financial Supervisory Commission (FSC) and, lending institutions that followed the recommendations which had been set by the International Monetary Fund (IMF). Thus, the researchers expected that the non-performing loans volume presented in their paper is similar to the international standards.

3.4.3. Dealing with the Bad Loans of the Chinese Banks

Bonin and Huang (2001) argue that the Chinese banking sector was fragile in the mid-1990s, but they mention that the Chinese Government started to give attention to the problem of bad loans since 1994. They also identify the main problems that had faced the Chinese banks, which consisted of a high proportion of non-performing loans and a low level of the capital-adequacy ratios. This study mentions that the Chinese government has temporarily established four institutions, which are named Asset Management Companies (AMCs). These AMCs were established in order to manage the bad assets, especially non-performing loans that appeared before 1996.

This study underlined that the establishment of AMCs were not able to find an appropriate solution to deal with bad loans and/or prevent the emergence of these types of loans in future. In addition, the Chinese Government developed a number of measures such as: "recapitalisation of the state-owned banks (SOBs), adoption of the international standard accounting system and introduction of debt-equity swaps as an instrument for dealing with bad debt" (Bonin and Huang, 2001: 6). This indicates that the Chinese Government was working to improve its banking sector by the avoidance of the financial problems, particularly bad loans. Accordingly, the researchers stress that the measures taken by the Chinese Government in order to address the problem of bad debts led to achieve good results compared with other economies of the East Asian countries.

Although the researchers mentioned that most of the East Asian countries are still suffering from the financial crises that emerged in 1997, this study confirmed that at the end of the 1990s the Chinese Government succeeded in reducing the financial crises, in particular bad debts. The authors also mention that the Chinese Government succeeded to continue with the growth of the Chinese economy and preventing the emergence of new economic crises, which may be non-performing loans. Finally, the researchers provide a number of recommendations related to the asset management companies (AMCs) (Bonin and Huang, 2001: 29–30). These recommendations are:

- AMCs would become financially independent from the government and continue as investment banks.

- AMCs must have the flexibility to recruit and dismiss employees without the constraints imposed by labour laws on state-owned enterprises (SOEs).
- AMCs should be allowed to contract with specialized agencies, including foreign agencies, to assist in handling situations that are beyond the capacity of their own staff.
- AMCs should be given incentives to develop the necessary skills to manage assets efficiently and to restructure state-owned enterprises (SOEs) to bring new, rejuvenated companies to the capital market.
- AMCs would be training grounds for a cadre of domestic staff to acquire the requisite financial skills to further the development of the Chinese capital market.
- AMCs must be independent both from their parent bank and from direct control by government agencies.

3.4.4. Non-performing Loans in Sub-Saharan Africa: Causal Analysis and Macroeconomic Implications

In his published works, Fofack (2005) highlights the problem of non-performing loans which affected a large number of countries in the Sub-Saharan Africa region. Consequently, non-performing loans led to the decline of the banks' assets and worsening of their capital. Theoretically, the researcher seeks to demonstrate some traditional definitions which define bad debts. The Central Bank of the Central African State *(Banque des Etats de l'Afrique Centrale) (BEAC)* define non-performing loans as "all loans which interest and/or principal have been left unpaid for a period of at least three months" (Fofack, 2005: 3).

Fofack (2005) also presents the substandard loans, which has been determined by the Central Bank of West African States *(Banque Centrale des l'Afrique de l'Ouest) (BCEAO)*. The Central Bank of West African States (*BCEAO*) identified substandard loans (loans doubtful and loss) as unpaid loans for six months. The researcher suggests that the loans unpaid for at least 90 days are considered as non-performing loans.

This study is considered as an attempt in identifying the causes, which led to the emergence of the banking crises in the Sub-Saharan African countries during of 1990s. The study confirms that non-performing loans are considered as the main reason for the spread of such banking crises in those countries. Accordingly, the researcher used the causality and pseudo-panel models to identify the reasons that led to the emergence of non-performing loans in Sub-Saharan countries. In order to limit the problem of non-performing loans some solutions are suggested which had proved to be effective in some countries such as China. Those solutions resulted in the establishment of (AMCs) and/or deposit insurance.

3.4.5. Why do Banks Fail?

Basu (2003) conducted this study in order to answer the question as to banks fail. The researcher stresses that the main reason, which leads to the banks collapse, is the exposure to the high proportion of non-performing loans. The researcher emphasized that the problem of bad loans arise in those economies, which are dominated by the competitive atmosphere of the business sector. Furthermore, he argues that the financial liberalization is considered as one of the reasons, which lead to the banks' failure. Moreover, he mentions the loans, which were granted in the absence of sufficient prior knowledge of the likely outcome of the borrowers' projects. As a result of these elements (the absence of accurate information and the financial liberalization) the author argues that the bankers do not have definite information on the collection process of the money granted in the form of loans, which may lead to the emergence of non-performing loans, and consequently lead to the banks' failure.

In addition, Basu (2003) indicates that there are important elements that must be taken into account in the process of granting loans in order to avoid the possibility of the banks failing. It has highlighted that these elements are in the form of the credit standard and credit risk. The researcher confirmed that the credit standard is considered as the safety valve. As pointed out before, it may be the cause of the banks failing, and, by using the credit standard in order to determine the lending level this is an insurance against the funds that have been granted in the form of loans.

Basu (2003) confirms that the use of the lending standard leads to an insistence that the borrower provides collateral in order to ensure the banks collect the funds which have been granted in the form of loans. On the other hand, the banks may resort to sell such collateral in the event of the borrowers' failure to repay their debts. Moreover, the credit standard can be used as a protection method of the depositors' money in the case of the banking crises. According to the researcher the concept of credit risk is defined as, "that risk arises when banks can not secure the entire loan by the credit standard". The researcher has also recommended that the banks must take the necessary measures to protect their money and the depositors' funds as well from the exposure of the lending risks by using the credit standard.

3.4.6. Bank Loans, the Reasons for the Default, and the Methods of Confrontation in Egypt

Nagm (2005) conducted a study in order to present the causes which lead to the emergence of non-performing loans in Egypt and the methods which may be used to treat these non-performing loans. This study was presented in a symposium held under the title of "Non-performing loans and the ways to remedy, in the light of the new Egyptian banking law". This study was conducted in Al-Sadat Academy for the Administrative Sciences.

Three main reasons were identified that lead to the emergence of non-performing loans in Egypt. The researcher mentions that the first reason is due to the bank's performance. He also identifies a number of policies and actions that can be taken by the bank in the process of granting loans but the researcher mentions that these policies and procedures may lead to the default of some loans which are granted by the bank. The second reason is related to the performance level of the clients. There are several subsidiary reasons relevant to the clients, which could in turn lead to the emergence of non-performing loans. The third reason, which leads to the emergence of non-performing loans, is due to the reasons related to the external conditions. Therefore, Nagm (2005) mentions that the external conditions are those reasons, which are related to the surrounding circumstances, for instance, natural disasters (fire, earthquakes, hurricanes, volcanoes etc.) and/or the state policies (financial policy, monetary policy, etc.).

It should also be mentioned that the researcher pointed out that the bad loans are different from one client to another in accordance with the causes and surrounding circumstances for each customer, due to different causes, which lead to the emergence of non-performing loans. Hence, Nagm (2005) mentions that there are different ways to deal with non-performing loans, which are depended on the default type.

In terms of how to deal with the bad loans, Nagm (2005) provided several ways to address this problem. Furthermore, he identified two cases in order to deal with the bad debts. These cases are in the form of (1) the existence of an agreement between the lender and the borrower for the settlement of the loan (2) the failure to reach to an agreement between the lender and the borrower for the settlement of the loan. In the first case, the agreement between the lender and the borrower is made through the borrower-support either, financially and/or morally. This support may lead the borrower to pay part or the full amount of the loan. Accordingly, the intended moral support exempts a portion of the loan, part of the interest owed and/or increasing the repayment period. On the other hand, financial support is the funds provision in short-term or medium-term to enable the borrowers to continue their activity. In the second situation where there is no agreement between the lender and borrower to settle the loan Nagm (2005) mentions that the settlement of these loans will be resorting to the law courts. He points out that the legal settlement is in the form of seizure of the customer funds, declaration of the borrower's bankruptcy, liquidation or sale of all or part of the project assets. Furthermore, he mentions that the banks (lenders) prefer not to go to court to get their borrowed money back because of exposure to some of the drawbacks of taking legal action such as failing to get back the full amount of the loan and/or paying exorbitant fees in order to complete the legal proceedings.

Finally, Nagm (2005) provided a number of recommendations which might help the lenders to avoid the risks regarding exposure to the problem of non-performing loans. Briefly, these recommendations are: (1) Follow the principle of the right person in the right place in the process of selecting the bank's staff , (2) Increase the proportion of the borrower's contribution in financing the project, (3) Avoid granting loans to the directors and board members of the bank, (4) The use of modern technology, (5) Conduct comprehensive studies on the loan applicants, (6) Verify the safety guarantees provided by the customer, (7) Follow up the loans that have been granted in the past, and (8) Commitment to the instructions and directives of the central bank.

3.4.7. Non-performing loans and the Ways of Remedy in the Light of the New Banking Law in Egypt

In 2005 the Commercial International Bank (Egypt) has presented a study entitled "Non-performing loans and the ways to address them in the light of the new banking law in Egypt". This study has been presented at the conference held under the name of: "Non-performing Loans and the Ways to Remedy Them in the Light of the New Egyptian Banking Law". This symposium has been conducted in Al-Sadat Academy for Management Sciences, Cairo.

This study presented a definition of bad loans as (Page: 1) "stop or delay the payment of instalments and/or interest due in the dates of maturity". This study also points out the main causes which may lead to the emergence of non-performing loans. These reasons are: (1) The inability to control the customer, (2) The weakness of the internal management of the project (the borrower), and (3) Reasons related to the lender (bank).

Furthermore, this paper proposes three methods which can be used to address the problem of non-performing loans. The first method which relates to the reasons beyond the control of the customer is divided into several alternatives: (1) Rescheduling of debts, (2) Rescheduling of the instalments, (3) Reduction the interest rate, (4) Granting additional loans, (5) Encourage clients to increase their capital and waive some of the benefits, (6) Recapitalization of non-performing projects, and (7) Waiving part of the loan. The second method to deal with non-performing loans that resulted from the weakness of the projects' management is divided into two alternatives, which are: (1) Enter a new partner in the project, and/or (2) Sale the project. The third method uses of the following alternatives: (1) The existence of a written loan policy, (2) Existence of good system for classifying loans, (3) Existence of good system for loans pricing, (4) Existence of good system for the diagnosis of non-performing loans, and (5) Good training for the staff responsible for granting loans.

Ultimately, this study recommended the need to establish a specialized institution in order to recover as much as possible of non-performing loans, by using one of the alternatives mentioned above. Also, this study recommended that in the case of the inability to use any of the previous alternatives, the banks may resort to use the legal actions in order to recover their funds given in the form of loans.

3.4.8. Banking Treatment of Bad Debts in Egypt: Causes and Effects

Chlch (2002) conducted a research paper, which related to the treatment of non-performing loans in the Egyptian banking sector. The researcher presents a number of reasons, which may lead to the emerging of bad loans. The study also shows a number of methods which can be used in order to deal with non-performing loans. In addition, the author defines non-performing loans as: "All types of credit facilities obtained by the customer who did not pay the value of such facilities on its due dates. Therefore, those debts will turn from ongoing credit facilities to make the balances stagnant. With the passage of time these debts will become in the form of non-performing loans" (Chlch, 2002: 15).

One of the main objectives of this study is to investigate the reasons, which lead to the emergence of non-performing loans. Chlch (2002) identifies a number of indicators, which may assist to determine non-performing loans. These indicators are: (1) Previous client's operations, (2) Financial statements of the customer, and (3) The field visits of the project.

On the other hand, Chlch (2002) identified several stages related to the financial crises. These stages are: (1) The weakness of financial liquidity, (2) Weakness in the working capital, (3) Interim financial hardship, and (4) Permanent financial hardship.

Added to the above, Chlch (2002) presented a number of reasons which led to the emergence of the problem of non-performing loans. These reasons are: (1) Client-related reasons, (2) Bank-related reasons and, (3) External environment-related reasons. Furthermore, the researcher pointed out the effects of non-performing loans on the national economy in general and the banking sector in particular.

Finally, Chlch (2002) shows that there are a number of methods, which are useful to deal with non-performing loans. These methods are in the form of client support and the liquidation of the project. Accordingly, the process of client support takes the form of debt rescheduling, and waiving a part of the accrued interest or reducing the interest rates named as the client flotation. In addition, the process of client support could be in the form of the debt capitalization, providing financial and marketing consultation or through the provision of cash support (cash injection). On the other hand, in the event of the inability of these methods to address the problem of bad debts, the banks can resort to use legal action to liquidate the defaulter project.

3.5. CONCLUSION

Based on the foregoing presentation, it can be concluded that the previous studies have given a comprehensive picture of the reasons, which may lead to the emergence of non-performing loans. The above-mentioned literature shows that there are number of ways and techniques that can be adopted by the banking sector and other lending institutions. There has to be a process of finding the best way that can be used in order to avoid and/or remedy non-performing loans.

This chapter also attempts to present some methods, which may be used by the financial institutions, particularly the depositary institutions, in order to avoid exposure to non-performing loans. Accordingly, these methods are in the form of financial analysis (vertical and horizontal analysis and financial ratios analysis) and the technique of future forecasting.

Lastly, a number of methods are described and suggested to address non-performing loans, which are collateralization, client support, and the establishment of a special institution to purchase non-performing loans. It is understood that these will prevent the disaster of non-performing loans from a theoretical perspective.

Chapter 4

THE LIBYAN STATE-OWNED COMMERCIAL BANKING SECTOR

4.1. INTRODUCTION

A local banking system is the mainstay of the revival and continuation of the economic life of any community. This happens through the financial mediation which occurs between savers and investors. The banking sector is the receptacle which is used to collect the savings of both individuals and institutions. Accordingly, the banking sector uses many methods in order to collect funds from savers such as deposits (demand deposits and time deposits) and creation of investment funds, etc. The main task of the banking sector is to convert these savings into real investments in the form of loans and credit facilities to borrowers.

Another function of the banking sector is in terms of finding methods to link the local economy with the economies of other countries through the completion of financial transactions between different countries. There are a number of methods which are used by the banking sector to complete the financial transactions outside the scope of the state border. These methods are in the form of letters of guarantee, documentary credits, cash transfers, etc.

The success of any economy depends mostly on the success of the banking sector which is responsible for the completion of all financial transactions. The banking sector is therefore considered as a financial intermediary between individuals and institutions. Also, it is a link between the individuals and institutions in other countries.

This chapter aims to discuss and present the development stages which the Libyan commercial banks have undergone, from an historical perspective. Accordingly, this development is presented in seven phases, which is determined by particular milestones in the financial development of Libyan economy. These stages are: (1) The Ottoman Empire period; (2) The Italian occupation period; (3) The British military administration period; (4) Pre-Libyanization period; (5) Libyanization period; (6) The nationalization period; (7) The emergence of the private commercial and regional (Ahliah) banks period. This study focuses on the last stage due to the significant developments that have taken place (which is related to the outcome of the study) and due to the evaluation of the Libyan state-owned commercial banks, which emerged in the period of 1993 to 2005. These evaluations are concentrated in a number of variables such as interest rates, deposits and loans. Finally, this chapter presents the problem of non-performing loans in the Libyan state-owned commercial banks.

4.2. THE DEVELOPMENTS OF THE LIBYAN COMMERCIAL BANKING SECTOR

Historical sources indicate that there was existence of distinct economic activity in North Africa generally, which includes Libya. The economic activity was represented by trade exchange between the neighbouring countries. This was characterized by the use of a form of money as an intermediary in business transactions. According to Dboz (1963) in the reign of the Tamazight king, Massinissa (one of the Numidia Kingdom kings in Central North Africa) in the period between 202 BC to 148 BC, metal (bronze) coins had been issued which featured his name and profile.

The real presence of banks in the Libyan state coincided with the presence of the Ottoman Empire (Turkish) in the region. During the period of Ottoman rule, Libyan society was an agricultural society. Hence, the Ottoman government had focused on financial institutions that served agricultural activity. Thus, the commercial banks in Libya had passed through several of stages of evolution (Central Bank of Libya, 2006a). This study, as mentioned, examines the financial/banking history of Libya in seven stages determined by certain events taken place in Libya. These events are associated with the internal and external conditions, especially the political and economic conditions. These stages are:

4.2.1. The First Stage - 1551 to 1911: The Ottoman Empire

This period is related to the Ottoman Empire's rule in North Africa. Economically, this period was characterized by the existence of a number of Ottoman and Italian banks (with the absence of any Libyan banks) which were designed to achieve a number of political objectives of these foreign powers. The first agricultural bank was established in 1868 by the Ottoman government in the city of Benghazi. The Ottoman government continued in the establishment of new banks. In 1901, it established another agricultural bank in the city of Tripoli, and in 1906 a new branch of the Agricultural Ottoman Bank was also established in Tripoli (Alhassih, 1995; Central Bank of Libya, 2006a).

In addition to Ottoman banks, during this period a number of Italian banks were established. In 1907, the Rome Bank (Banco di Roma) was established as the first Italian bank in Libya. In addition, Rome Bank established two branches in Tripoli and Benghazi. Added to that, a number of commercial agencies were also established by Bank of Rome in Zuarh, AlKums, Sirte, Mssratah, Zleetin, Dernh and Tobruk. However, the purpose of the establishment of these banks was basically to prepare the ground for the Italian occupation of Libya (Central Bank of Libya, 2006a; Syndicate of Banking, 1990).

1911 was characterized by the inauguration of a new branch of the Ottoman Agricultural Bank in Benghazi. It should be noted that 1911 was considered as the end of the first stage because it began with the Italian occupation of Libya which led to the expediting of the closure of Turkish banks in Libya. Thus, the control of the Libyan economy by the Italian banks began (Alarbah, 1985).

4.2.2. The Second Stage - 1911 to 1942: The Italian Occupation Period

This period began with the Italian occupation of Libya which started in 1911. This period was characterized with the emergence of absolute control of the Italian banks over entire Libyan economic activity. The main objective of the Italian banks established in Libya was for the service of the Italian objectives. Thus, the results achieved by the Italian banks in that period were as successful in the dimensions of the non-Italian Banks. Therefore, in 1912 the Ottoman Agricultural Bank was liquidated (Central Bank of Libya, 2006a).

The stage of Italian Occupation was marked by the opening of branches of the Italian Banks in Libya: Bank of Rome in 1911, Italy Bank in 1912, Cicely Bank in 1912 and Bank of Naples in 1913 (Syndicate of Banking, 1990). It is noteworthy that most of the tasks that belonged to the Libyan ministry of finance were controlled by the Bank of Rome which had already created a number of branches in both Tripoli and Benghazi (Alarbah, 1985).

Italian banks were successful in terms of imposing their control on the whole Libyan economy. This period was also characterized by the establishment of three local banks: Savings Tripoli Fund in 1923; Savings Burka Fund in 1925 and Tripoli Bank in 1929. However, 1935 saw the establishment of the Libyan's Savings Fund by the merging of Tripoli Fund and Burka Fund (Alarbah, 1985). This stage was followed by British Military Administration.

4.2.3. The Third Stage - 1943 to 1952: British Military Administration

This period began in 1943 with the beginning of the allied forces control of Libya after Italy's defeat in the Second World War, which resulted in the end of absolute Italian control in Libya. This led to the emergence of the authority of British Military Administration by the mandates of Tripoli and Burka. However, the mandate of Fezzan was controlled by the French military administrative authority. But the absolute control on the economic side in Libya was in the hands of the British Military Administration. To evidence this, in 1943 branches of Barclays Bank in Tripoli and Benghazi were established (Alarbah, 1985).

Despite the presence of some European banks which were operating in Libya, this period saw the establishment of the Arab Bank in 1950. However, Libyan financial and monetary activity was absolutely controlled by Barclays Bank. In addition to providing banking services, Barclays Bank was also entrusted with the task of issuing currency, which implies that Barclays Bank played the role of the undersecretary of the British Finance Ministry in Libya. Additionally, Lire Military was the currency which was used in the Libyan market at that time, which was fully covered by the British pound (Central Bank of Libya, 2006a). However, in 1951 the interim government in Libya issued Law No. 4 in 1951 in order to establish the Monetary Committee which was charged with the task of issuance of currency (Syndicate of Banking, 1990). Moreover, on 24 December 1951 Libya achieved its independence (Khadduri, 1963).

4.2.4. The Fourth Stage - 1952 to 1963: Pre-Libyanization Stage

This period was marked by the granting of licenses to the establishment of new foreign banks in Libya. In 1952 the Libyan banking sector saw the establishment of a number of branches of foreign banks such as Tunisian-Algerian Bank, Egyptian Bank, the British Bank of the Middle East, Bank of America and the Morgan Guaranty Bank. In spite of the establishment of the Libyan National Bank in 1956, there was an absence of Libyan commercial banks (World Bank, 1960). This led to the emergence of the need to establish local commercial banks (Central Bank of Libya, 2006a). It should be noted that the majority of the tasks of the foreign banks were related to business in order to achieve substantial profits through exploitation of the resources of the society with low risks (Syndicate of Banking, 1990).

Alarbah (1985) points out that the establishment of the Libyan National Bank in 1955 (which is considered as the first national bank that was created in Libya) was the result of Law No. (30) of 1955 promulgated in Tripoli. In 1956, the Libyan National Bank began its task as the Central Bank of Libya and in 1957 established a new branch in Benghazi (World Bank 1960). Therefore, the main function of the Libyan Central Bank (Libyan National Bank) at that time was the task of issuing currency (notes and coins) (Alarbah, 1985; Central Bank of Libya, 2006a).

As demonstrated, foreign banks continued to dominate the Libyan economy in the initial period of the independent Libya. The reason for this was because of the inability of the Libyan National Bank to control, carry out the necessary supervision and oversee regulations on the foreign banks which were operating in Libya. This in turn led to the inability to achieve the economic objectives of the Libyan State. These shortcomings led to the inability of the Libyan National Bank to control both the volume and type of credits granted by the foreign banks. The services which had been provided by foreign banks in Libya were to the businesses which achieved a high level of profit, while ignoring the economic interests of the State such as the developments of industry and agriculture (Central Bank of Libya, 2006a; Alarbah, 1985).

4.2.5. The Fifth Stage - 1963 to 1970: Libyanization Stage

This stage is considered as one of the most important stages that the Libyan banking system in particular and the Libyan economy in general underwent. Generally, the beginning of this period saw the continuation of the foreign banks leading the Libyan economy, which had led to the necessity to rebuild and organize the Libyan banking sector. The creation and promulgation of Law No. (4) of 1963 was an important cornerstone in this period. It should be noted that with the enactment of this law the name of the Libyan National Bank was changed to become the Central Bank of Libya which was given full power to conduct the inspection on the national and foreign banks operating in Libya, with the ability to impose the appropriate penalties on them. Also, this law was considered as the cornerstone of the implementation of the monetary policy which was used to improve the economic situation of the state. This law was enacted as a result of the necessity to reorganize the foreign banks which were operating in Libya. Additionally, the important point in Law No. 4 of 1963 was that the share of Libyan citizens in the foreign banks' capital, which were operating in Libya, should be no less than 51%, which, hence, implies the Libyanization process (Central Bank of Libya, 2006a).

From a practical perspective, the actual beginning of the Central Bank of Libya as indicated with the application of Law No. 4 of 1963 (Libyanization of the foreign banks) was the beginning of 1964. Thus, during the process of Libyanization the Central Bank of Libya had managed only three foreign banks functioning at that time which were Cicely Bank, Tunisian-Algerian Bank and the British Bank of the Middle East. As a result, the Central Bank of Libya transferred those banks into Libyan stock companies. Therefore, the share of the Central Bank of Libya in the capital of foreign banks became 51%. Consequently, those procedures led to the change of names of those banks which had been converted into Libyan stock corporations: Cicely Bank became known as Sahara Bank, the Tunisian-Algerian Bank was renamed African Banking Corporation and the British Bank of the Middle East was given the new title of North Africa Bank. However, the Central Bank of Libya failed to perform as required due to its inability to Libyanize the other foreign banks which were operating in Libya in that period of time such as, Rome Bank, Barclays Bank and Naples Bank (Central Bank of Libya, 2006a; Syndicate of Banking, 1990).

On 1st September 1969 the emergence of the new political regime (as a result of the Al-Fateh Revolution) accompanied many of the political and economic changes in Libya. The priority of the Al-Fateh Revolution was to improve the level of the Libyan economy by improving the level of the banking sector. Therefore, a decision of the Revolution Command Council issued on 13th November 1969 was the conversion of all the foreign banks which were operating in Libya, to stock companies. This included that the share of the Libyans, in the capital of those companies, must be more than 51%, and that the majority of the board of directors of the foreign companies and banks must be Libyans, including the chairman (Alqadhafi, 2002). In practical terms, the decree of the Revolution Command Council on Libyanization was implemented. The foreign shareholders were dissatisfied with the Libyanization process. On the other hand, the Central Bank of Libya was still not able to control the new banks (Central Bank of Libya, 2006a).

4.2.6. The Sixth Stage - 1970 to 1993: The Nationalization Stage

Generally, the banking sector plays an important role for efficient and successful economic development. Hence, the Libyan government sought to improve the conditions of its banking sector. Accordingly, the most important action taken by the Libyan government in order to improve the Libyan banking sector was by the creation of Law No. 153 of 1970 for the nationalization and reorganization of foreign banks, which were operating in Libya (Syndicate of Banking, 1990). In practical terms, the application of Law No. 153 of 1970 meant that all the banks that were operating in Libya had to be transformed to become Libyan state-owned. Based on this law, all the banks operating in Libya have become fully owned by Libyans (government and nationals). As a result, banking operations in Libya became restricted only to the Libyan banks, while foreign banks and companies have been suspended to perform any type of banking operations. On the other hand, Law No. 153 of 1973 created the integration of all the banks, which had been operating in Libya into five commercial banks. The five Libyan state-owned commercial banks are (Central Bank of Libya, 2006a; Alqadhafi, 2002; Syndicate of Banking, 1990):

(i) Sahara Bank: established in 1964 by the nationalization policies by merging the America Bank and Cicely Bank. 83% of the capital of the bank was owned by the Central Bank of Libya and the rest (17%) was owned by Libyan citizens.

(ii) **Umma Bank:** founded in 1969 by the nationalization of Bank of Rome. The Central Bank of Libya has 100% of the capital of this bank.

(iii) **Al-Gumhouria Bank:** founded in 1970 in accordance with the decree to nationalize Barclays Bank. The Central Bank of Libya owned 100% of the capital of this bank.

(iv) **The National Commercial Bank:** established in 1970 through the merger of the departments of the commercial banking operations in the Central Bank of Libya, Al-Orubah Bank and Al-Istiklal Bank. As a result, the share of the Central Bank of Libya in the capital of National Commercial Bank was 100%.

(v) **Al-Wahda Bank:** founded in 1970, in accordance with the decree to nationalize banks, through the merger of North Africa Bank, the Commercial Bank, the Alnahda Arab Bank, the Corporation of African Banking and the Bank of Al-Qafilah Al-Ahli. The Central Bank of Libya owned 87% of the capital of Al-Wahda Bank, and 13% owned by the citizens.

4.2.7. The Seventh Stage 1993 to 2005: Stage of the Emergence of Private Banks, Commercial Banks and Regional Banks

This period was marked by the promulgation of Law No. (1) of 1993 allowing the establishment of private banks, which aimed at encouraging the private sector to contribute to the state's economic activities and to work to expand the base of ownership, which resulted in a number of private banks being established in that period of time. These banks are:

(i) **Commercial and Development Bank:** established in 1996.

(ii) **The Regional (Ahliah) Banks:** in 1996 the Central Bank of Libya had authorized the establishment of a number of regional (Ahliah) banks which were aimed primarily to serve the areas surrounding those banks.

(iii) **Al-Ijmaa Alarabi Bank:** founded in 2003.

(iv) **Al-Amaan Bank for the Investment and Trade**: set up in 2003.

The period of 1993 to 2005 witnessed a number of remarkable economic and politic events on both the international and domestic levels, and therefore it is the subject matter of this research.

At the international level, this period saw the emergence of a number of economic and political blocs such as the emergence of the European Union and the final change towards using the Euro as the official currency (notes and coins) within EU countries (Brokelind, 1999, Communities, 2000). On the other hand, it also witnessed some negative events such as the financial crisis that struck a number of the East Asian countries in 1997. As a result, that crisis led to the collapse of a number of Asian banks which caused a negative impact on the economies of many countries, especially the countries which had dealing with the Asian markets (Frederic, 1999). Also, the Gulf War was one of the negative events that led to the emergence of a number of political and economic problems; for instance, an increase in the oil prices (Wang, 2006).

On the domestic level, this stage also witnessed the impact of the sanctions imposed by the United Nations on Libya. These sanctions are considered as a vital linchpin in the emergence of many problems particularly related to the Libyan economy (Griswold, 1998). In addition, at the local level, this period was marked by the Libyan state giving great attention of improving the banking sector in general, and the commercial banks in particular. The Libyan government was concerned about its banking sector and this resulted in the issuance of the Banking Law No. (1) of 1993. Accordingly, this law has given greater power to the Central Bank of Libya in order to create and strengthen the application of the state's monetary policy.

This period was also characterized by the Libyan government allowing the opening of a number of new local private or public banks as well as allowing foreign banks to open branches in Libya. Practically, the Central Bank of Libya has adopted expansive policies in order to improve the economic situation of the country in the form of granting loans and credit facilities, especially for the activities of productivity and craft, and also by reducing the interest rates on the agricultural and industrial loans (Central Bank of Libya, 2006a).

4.3. THE EVOLUTIONARY DEVELOPMENTS AND TRENDS IN THE ACTIVITIES OF LIBYAN COMMERCIAL BANKS

The monetary policies which were adopted by the Central Bank of Libya in the period of 1993 to 2005, led to the improvement of the Libyan banking sector through its restructuring. Accordingly, this restructuring occurred through the issuance of a number of laws and decrees. Banking Law No. (1) of 2005 is the most important as it aims to increase the independence of the Central Bank and the increase of its authority over the commercial banking sector (Porter and Yergin, 2006).

According to Congress (2005: 23) the definition of commercial bank is "any company that ordinarily accepts deposits in current demand accounts or time deposits, grants loans and credit facilities, and engages in other such banking activities shall be considered a commercial bank". As a result, the objectives of Law No. (1) of 2005 are to determine the conditions that must be available in the commercial banking sector. Also, this law has identified the activities that can be exercised by the Libyan commercial banking sector (Congress, 2005: 23). These activities are:

(i) The cashing of cheques made out to and by customers;

(ii) Services relating to documentary credits, documents for collection, and letters of credit;

(iii) Issuance and management of instruments of payment including monetary drawings, financial transfers, payment and credit cards, traveller's cheques, etc;

(iv) Sale and purchase transactions involving monetary market instruments and capital market instruments to the credit of the bank or its customers;

(v) The purchase and sale of debt, with or without the right of recourse;

(vi) Lease financing operations;

(vii) Foreign exchange transactions in spot and forward exchange markets;

(viii) The management, coverage, distribution, and transaction of banknote issues.

(ix) The provision of investment and other services for investment portfolios, and the provision of investment trustee services, including the management and investment of funds for a third party.

(x) Management and safekeeping of securities and valuables;

(xi) Provision of trustee financial investors services;

(xii) Any other banking activities approved by the Central Bank of Libya.

In addition to the above, the most important developments that have occurred for the Libyan state-owned commercial banking sector from 1993 to 2005 were in the following areas: (1) The evolution of the interest rate (2) The evolution of the clients' deposits (3) The evolution of the loans and credit facilities granted.

4.3.1. Trends in the Interest Rates

Among the practical measures which were taken by the Central Bank of Libya is the reconsideration on the interest rates (receivable and payable). Accordingly, the Central Bank of Libya has issued a number of decisions and laws to amend interest rates. As a result, Table 4.1 reviews the movement of the interest rates set by the Central Bank of Libya.

Table 4. 1: Trends in the Interest Rates for the Libyan Banking Sector

<table>
<tr><th></th><th></th><th>1994</th><th>2004</th><th>2005</th></tr>
<tr><td>1</td><td><u>Interest Rates on the Deposits</u></td><td></td><td></td><td></td></tr>
<tr><td>1.1</td><td>Demand Accounts</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>1.2</td><td>Time Deposits</td><td></td><td></td><td></td></tr>
<tr><td></td><td>10 days or less</td><td>2.5%</td><td>1.5%</td><td>-</td></tr>
<tr><td></td><td>More than 10 days and less than one month</td><td>3.0%</td><td>2.0%</td><td>-</td></tr>
<tr><td></td><td>From one month to less than 3 months</td><td>3.5%</td><td>2.5%</td><td>-</td></tr>
<tr><td></td><td>From 3 months to less than 6 months</td><td>4.0%</td><td>3.0%</td><td>-</td></tr>
<tr><td></td><td>From 6 month to less than one year</td><td>5.0%</td><td>4.0%</td><td>-</td></tr>
<tr><td></td><td>One year and more</td><td>5.5%</td><td>4.5%</td><td>-</td></tr>
<tr><td>1.3</td><td>Savings accounts</td><td></td><td></td><td></td></tr>
<tr><td></td><td>Less than 20 thousand Libyan Dinar</td><td>6.0%</td><td>5.0%</td><td>-</td></tr>
<tr><td></td><td>From 20 thousand Dinar to less than 100 thousand Libyan Dinar</td><td>5.0%</td><td>4.5%</td><td>-</td></tr>
<tr><td></td><td>More than 100 thousand Libyan Dinar</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>2</td><td><u>The Interest Rates on the Credits</u></td><td></td><td></td><td></td></tr>
<tr><td>2.1</td><td>Secured Commercial Credits</td><td>7.0%</td><td>6.0%</td><td rowspan="5">6.5%</td></tr>
<tr><td>2.2</td><td>Loans and Overdrafts</td><td>7.5%</td><td>6.5%</td></tr>
<tr><td>2.3</td><td>Loans: Agricultural , Industrial and Professional</td><td>6.0%</td><td rowspan="3">3.0%</td></tr>
<tr><td>2.4</td><td>Loans: Shift to Production</td><td>5.0%</td></tr>
<tr><td>2.5</td><td>Housing loans</td><td>2.0%</td></tr>
</table>

Sources: Economic Bulletin, Central Bank of Libya, various issues.

According to Alqadhafi (2002), 1993 saw the emergence of Law No. (1) which has resulted in a marked evolution of the Libyan banking sector and which led to the establishment of a number of new banks. The Central Bank of Libya continued its policy toward improving the Libyan banking sector and economic activity through the amendment of the interest rates which were prevalent at that time; it has reduced the interest rates on the industrial and productivity loans. Also included is the reduction of the interest rates on time deposits in order to encourage people to search for alternative investment opportunities. Central Bank of Libya (2001) reports that the actual application of the interest rates that were identified in 1993 had started in 1994.

Table 4.1 shows that 2004 witnessed a number of changes in the interest rates. Those changes were due to the decisions which have been issued by the Central Bank of Libya as previously explained. Accordingly, this study presents a number of resolutions, issued by the Central Bank of Libya in order to establish the change of the interest rates, which are as follows:

(i) Resolution No. 6 of 2004 was issued in order to change the value of interest rates of the commercial banks. According to Central Bank of Libya (2004) and as shown in Table 4.1 above, this resolution consists of the following:

- Reducing the interest rate on time deposits, which are 10 days or less from 2.5% to 1.5%.
- Reducing the interest rate on time deposits, which are more than 10 days and less than one month from 3.0% to 2.0%.
- Reducing the interest rate on time deposits, this is one month to less than 3 months from 3.5% to 2.5%.
- Reducing the interest rate on time deposits, which are 3 months to less than 6 months from 4.0% to 3.0%.
- Reducing the interest rate on time deposits, which are 6 month to less than one year from 5.0% to 4.0%
- Reducing the interest rate on time deposits, which are one year and more from 5.5% to 4.5%.
- Reducing the interest rate on savings accounts from 6% to 5% on cash balances less than LD 20,000.
- Reducing the interest rate on savings accounts from 2.5% to 1.5% on cash balances from LD 20,000 and less than LD 100,000.
- A savings account more than LD 100,000 is exempt from the interest rate.

- Reducing the interest rate on secured loans from 7% to 6%.
- Reducing the interest rates on unsecured loans from 7.5% to 6.5%.
- Reducing the interest rates on agricultural, industrial and professional loans from 6% to 3%.
- Reducing the interest rates of production from 6% to 5%.
- Increasing in the housing loans from 2% to 3%.

(ii) Resolution No. 16 for 2004 allowed the commercial banks to grant productivity loans and reduction of the interest rates on those types of loans to become 3% annually (Central Bank of Libya, 2006a).

On the other hand, as can be seen from Table 4.1, 2005 witnessed changes on the value of the interest rates on all types of loans and credit facilities which became standardized at 6.5%. Also, there are a number of changes in interest rates which occurred as a result of the emergence of Law No. 1 for 2005 and a number of resolutions issued by the Central Bank of Libya. Central Bank of Libya (2005b) reports those resolutions as:
(i) Central Bank of Libya Resolution No. 15 for 2005 to decrease the interest rate on thecommercial banks deposits in the central bank from 2.5% to 1.75%. Accordingly, the aim of this resolution was to encourage the commercial banks to seek new investments, which would assist in the growth of the national economy.
(ii) Central Bank of Libya resolution No. 36 for 2005 on the liberalization of the interest rates on time deposits in commercial banks. This decision was issued to increase the competition among the commercial banks in order to determine the interest rates, which leads to the increase in competition for attracting deposits.
(iii) Central Bank of Libya resolution No. 39 for 2005 on standardization of the interest rates relevant to the loans and credit facilities granted by the Libyan commercial banks.

As a result, the resolutions above were aimed to achieve a number of goals, for instance, broadening the ownership base, the creation of the production base and to maintain the overall level of the prices of goods and products (Central Bank of Libya, 2005b; Central Bank of Libya, 2006a).

4.3.2. Developments and Trends in Deposits in the Libyan State-owned Commercial Banks

In general, financial intermediary function is considered as the major objective behind the establishment of the commercial banks. Thus, the commercial banking sector holds an important position when compared with other financial institutions in terms of the provision of financial services. From a practical point of view, the commercial banks seek to obtain the greatest amount of cash, which are used in different activities especially in the process of granting loans and credit facilities either to individuals or institutions. Accordingly, the funds derived from deposits are considered as the main resource of the commercial banks funds (Madura, 1995).

The commercial banking sector seeks to improve its tools in order to obtain the largest amount of funds. Thus, the commercial banks seek to create many types of deposits products, for instance, demand deposits, time deposits and saving deposits. Therefore, the increase of the deposits value usually leads to the increase in the commercial banks capacity to improve their functions; and the task of granting loans and credit facilities is considered as the most important function of the commercial banks (Madura, 1995).

Hubbard (2000) points out that the commercial banks have many types of sources for their funds which are in the form of capital, reserves, loans, etc. Additionally, he mentioned that the highest proportion of the commercial banks funds presented in the balance sheet is related to the deposits funds. Therefore, the various kinds of deposits are considered as the most important sources of funds for the commercial banks.

Through the data collected from the economic bulletins issued by the Central Bank of Libya, consequently it can be noted that the deposits are considered as the main funding for the commercial banking sector in Libya. The main types of deposits, which are used by the Libyan commercial banking sector in order to facilitate the collection of the largest amount of funds, are the following:

4.3.2.1. Demand deposits account

This type of deposits is considered as the more common compared with the other types of deposits that existed in the Libyan commercial banks. Practically, commercial banks offer their depositors chequebooks in order to use them for the withdrawal of their money. In the other words, the depositor has a right to withdraw his/her money in the appropriate time by using cheques. However, commercial banks are not obliged to pay interest to depositors for this type of deposit. Thus, the commercial banks must retain a highest proportion of the legal reserves in order to cover the sudden withdrawal of cash compared with the other types of deposits (Madura, 1995).

4.3.2.2. Time deposits

This type of deposit does not allow the depositors to withdraw their money or give advance notice of withdrawal until after the expiry of a period of time. In contrast to current deposits, the banks grant interest rates in order to encourage savers to deposit their money in the form of time deposits. Therefore, a bank gives certificates to the depositors reflecting the principal amount of deposits and the accrued interest (Hubbard, 2000).

4.3.3.3. Savings Deposits:

This type of deposit is characterized by giving the right to the depositors to obtain benefits while ensuring the withdrawal of their funds at any time (Hubbard, 2000).

In the second quarter of 2006, the Economic Bulletin showed that the Central Bank of Libya identified the legal reserve ratio on demand deposits at 15% and on time deposits and saving deposits at 7.5%, respectively (Central Bank of Libya, 2006a).

Table 4. 2: Deposits in the Libyan State-owned Commercial Banks (1993 to 2005)

(Million Libyan Dinars)

Deposits / *Years*	Demand	Time	Savings	Total
1993	3008.1	1142.2	151.5	4301.8
1994	3623.5	1221.8	190.6	5035.9
1995	3737.2	1551.6	214.3	5503.1
1996	3888.9	1750.3	239.8	5879
1997	3976.7	1799.6	263.3	6039.6
1998	4159.3	2107.6	287.4	6554.3
1999	4512.5	2221.1	347.6	7081.2
2000	4745.4	2272.7	416	7434.1
2001	5132.1	2747.6	506.5	8386.2
2002	5801.8	2346.3	559.7	8707.8
2003	6127.8	2823.7	615.7	9567.2
2004	7683.6	2909.2	685.9	11278.7
2005	9856.9	3735.4	671.3	14263.6

Sources: Economic Bulletin, Central Bank of Libya, various issues

Figure 4. 1: Deposits Evolution of the Libyan State-owned Commercial Banks

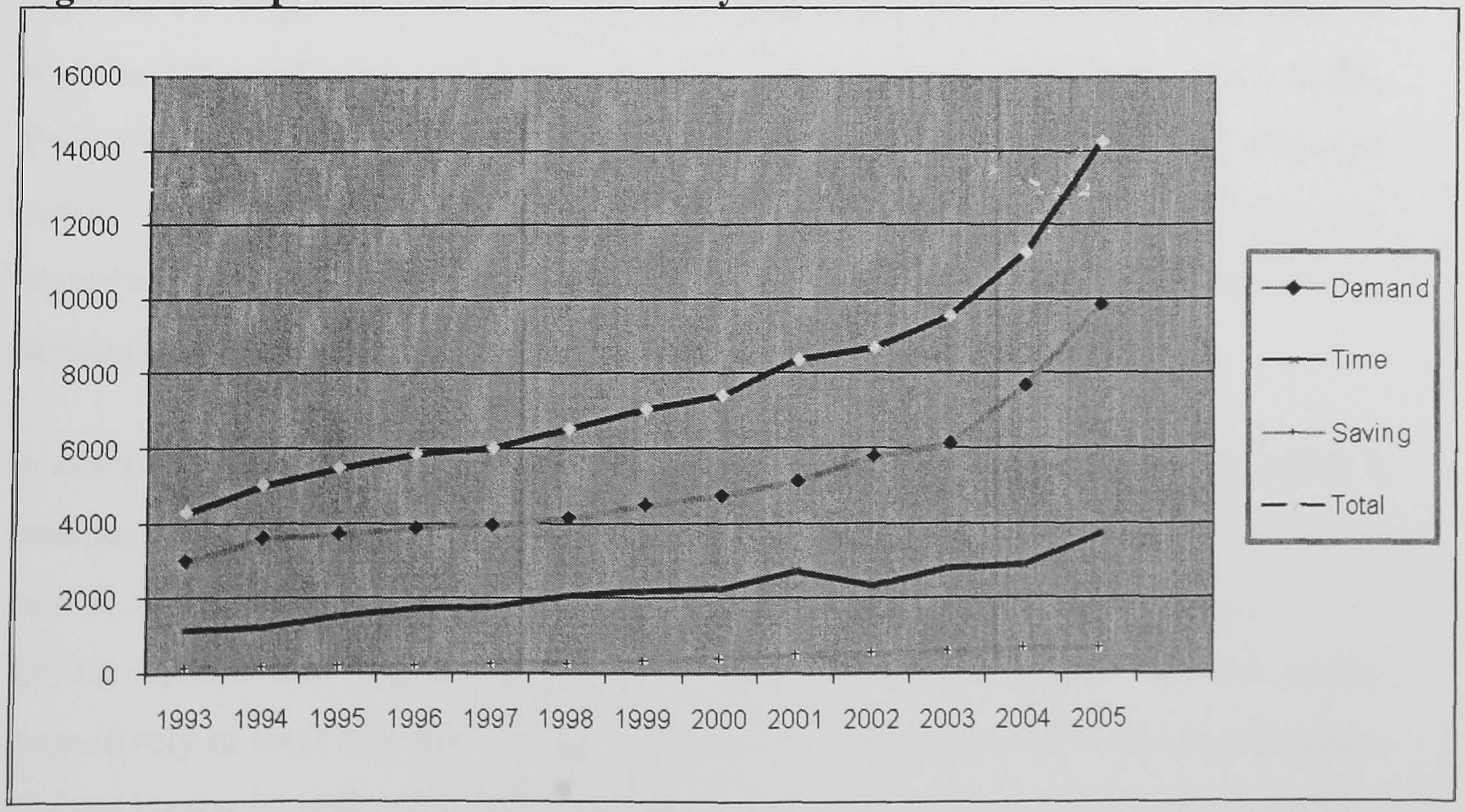


Table 4. 3: The Deposits Rates of Libyan State-owned Commercial Banks (1993 to 2005)

(Million Libyan Dinars)

Deposits / Years	Demand	% of Total	Time	% of Total	Savings	% of Total	Total	Total %
1993	3008.1	69.93%	1142.2	26.55%	151.5	3.52%	4301.8	100 %
1994	3623.5	71.95%	1221.8	24.26%	190.6	3.78%	5035.9	100%
1995	3737.2	67.91%	1551.6	28.20%	214.3	3.89%	5503.1	100%
1996	3888.9	66.15%	1750.3	29.77%	239.8	4.08%	5879	100%
1997	3976.7	65.84%	1799.6	29.80%	263.3	4.36%	6039.6	100%
1998	4159.3	63.46%	2107.6	32.16%	287.4	4.38%	6554.3	100%
1999	4512.5	63.73%	2221.1	31.37%	347.6	4.91%	7081.2	100%
2000	4745.4	63.83%	2272.7	30.57%	416	5.60%	7434.1	100%
2001	5132.1	61.20%	2747.6	32.76%	506.5	6.04%	8386.2	100%
2002	5801.8	66.63%	2346.3	26.94%	559.7	6.43%	8707.8	100%
2003	6127.8	64.05%	2823.7	29.51%	615.7	6.44%	9567.2	100%
2004	7683.6	68.12%	2909.2	25.79%	685.9	6.08%	11278.7	100%
2005	9856.9	69.11%	3735.4	26.19%	671.3	4.71%	14263.6	100%

From Tables 4.2, 4.3 and Figure 4.1 it can be seen that the demand deposits have recorded the largest proportion of the total deposits compared with the other types of deposits (time and savings deposits) in the Libyan commercial banking. As a result, 1993 saw that the volume of demand deposits recording LD 3008.1 million, which is equivalent to 69.93% of the total deposits. Also, it can be seen that time deposits amounted to LD 1142.2 million being 26.55% of the total deposits. In addition, the saving deposits reached LD 151.5 million or 3.52% of the total deposits.

In addition, it can be noted that the demand deposits increased to reach LD 3888.9 million in 1996, showing a decrease to 66.15% of total deposits. From Table 4.3 it can be observed that in 1996 time deposits and saving deposits increased to LD 1750.3 million and LD 239.8 million respectively; reaching 29.77% and 4.08% respectively of total deposits. It can be noted that the proportion of demand deposits was the largest in 1994, at 71.95% compared with the other years of the study period.

Furthermore, it can be noted that in 1999, the demand deposits increased to LD 1504.4 million by claiming 63.73% of total deposits compared with the base year,

1993. On the other hand, the other deposits (time deposits and saving deposits) increased to reach LD 2221.1 million and LD 347.6 million with their proportionate rate of 31.37% and 4.91% in total deposits, respectively.

It can be seen that in 2002 demand deposits recorded a remarkable achievement, which amounted to LD 5801.8 million with 66.63% of the total deposits, whereas time deposits decreased to LD 2346.3 million by claiming 26.94% of total deposits compared with 2001. Also, it can be seen that the saving deposits recorded an increase to LD 559.7 million reaching 6.43% of total deposits.

Ultimately, in 2005 the improvement in the demand deposits and time deposits was observed, increasing to LD 9856.9 million and LD 3735.4 million implying 69.11% and 26.19% of total deposits respectively. On the other hand, it can be noted that there is a decline in the proportion of saving deposits, which claimed 4.71% of total savings and amount to LD 671.3 million compared with 2004, which recorded 6.08% of total savings and reached the amount of LD 685.9 million.

Table 4. 4: Change in the Absolute Value of the Deposits in the Libyan State-owned Commercial Banks (1993 to 2005)

(Million Libyan Dinars)

Deposits / *Years*	Demand	Change in the Absolute Value	Time	Change in the Absolute Value	Savings	Change in the Absolute Value	Total	Change in the Absolute Value
1993	3008.1	-	1142.2	-	151.5	-	4301.8	-
1994	3623.5	615.4	1221.8	79.6	190.6	39.1	5035.9	734.1
1995	3737.2	729.1	1551.6	409.4	214.3	62.8	5503.1	1201.3
1996	3888.9	880.8	1750.3	608.1	239.8	88.3	5879.0	1577.2
1997	3976.7	968.6	1799.6	657.4	263.3	111.8	6039.6	1737.8
1998	4159.3	1151.2	2107.6	965.4	287.4	135.9	6554.3	2252.5
1999	4512.5	1504.4	2221.1	1078.9	347.6	196.1	7081.2	2779.4
2000	4745.4	1737.3	2272.7	1130.5	416	264.5	7434.1	3132.3
2001	5132.1	2124.0	2747.6	1605.4	506.5	355.0	8386.2	4084.4
2002	5801.8	2793.7	2346.3	1204.1	559.7	408.2	8707.8	4406.0
2003	6127.8	3119.7	2823.7	1681.5	615.7	464.2	9567.2	5265.4
2004	7683.6	4675.5	2909.2	1767.0	685.9	534.4	11278.7	6976.9
2005	9856.9	6848.8	3735.4	2593.2	671.3	519.8	14263.6	9961.8

Table 4. 5: Index Value of the Deposits in the Libyan State-owned Commercial Banks (1993 to 2005)

(Million Libyan Dinars)

Deposits / Years	Demand	Index Value	Time	Index Value	Savings	Index Value	Total	Index value
1993	3008.1	1.0	1142.2	1.0	151.5	1.0	4301.8	1.0
1994	3623.5	1.20	1221.8	1.07	190.6	1.26	5035.9	1.17
1995	3737.2	1.24	1551.6	1.27	214.3	1.41	5503.1	1.28
1996	3888.9	1.29	1750.3	1.53	239.8	1.58	5879.0	1.37
1997	3976.7	1.32	1799.6	1.58	263.3	1.74	6039.6	1.40
1998	4159.3	1.38	2107.6	1.85	287.4	1.90	6554.3	1.52
1999	4512.5	1.50	2221.1	1.94	347.6	2.29	7081.2	1.65
2000	4745.4	1.58	2272.7	1.99	416.0	2.75	7434.1	1.73
2001	5132.1	1.71	2747.6	2.41	506.5	3.34	8386.2	1.95
2002	5801.8	1.93	2346.3	2.05	559.7	3.69	8707.8	2.02
2003	6127.8	2.04	2823.7	2.47	615.7	4.06	9567.2	2.22
2004	7683.6	2.55	2909.2	2.55	685.9	4.53	11278.7	2.62
2005	9856.9	3.28	3735.4	3.27	671.3	4.43	14263.6	3.32

Table 4. 6: The Annual Change of the Deposits in the Libyan State-owned Commercial Banks (1993 to 2005)

(Million Libyan Dinars)

Deposits / Years	Demand	Annual Change	Time	Annual Change	Saving	Annual Change	Total	Annual change
1993	3008.1	-	1142.2	-	151.5	-	4301.8	-
1994	3623.5	20.5%	1221.8	7.0%	190.6	25.8%	5035.9	17.1%
1995	3737.2	3.14%	1551.6	18.7%	214.3	12.4%	5503.1	9.3%
1996	3888.9	4.06%	1750.3	20.7%	239.8	11.9%	5879.0	6.8%
1997	3976.7	2.26%	1799.6	2.8%	263.3	9.8%	6039.6	2.7%
1998	4159.3	4.59%	2107.6	17.1%	287.4	9.2%	6554.3	8.5%
1999	4512.5	8.49%	2221.1	5.4%	347.6	20.9%	7081.2	8.0%
2000	4745.4	5.16%	2272.7	2.3%	416.0	19.7%	7434.1	5.0%
2001	5132.1	7.53%	2747.6	20.9%	506.5	21.8%	8386.2	12.8%
2002	5801.8	13.05%	2346.3	-14.6%	559.7	10.5%	8707.8	3.8%
2003	6127.8	5.62%	2823.7	20.3%	615.7	10.0%	9567.2	9.9%
2004	7683.6	25.39%	2909.2	3.0%	685.9	11.4%	11278.7	17.9%
2005	9856.9	28.28%	3735.4	28.40%	671.3	-2.1%	14263.6	26.5%

From Tables 4.4, 4.5 and 4.6 it can be noted that Libyan state-owned commercial banks are concentrated in using the basic types of deposits. The outcome of deposits size in Libyan commercial banks during the study period (1993 to 2005) is evaluated as follows:

a) Demand deposits

In general, it can be seen from Tables 4.4; 4.5 and 4.6 that the study period (1993 to 2005) witnessed gradual development of the size of the demand deposits in the Libyan state-owned commercial banks. Accordingly, in 1996 the value of demand deposits has amounted to LD 3888.9 million. Also, by taking into account 1993 as a base year it can be seen that the change in the absolute value of demand deposits amounted to LD 880.8 million indicating an index value of 29.3%. On the other hand, it can be observed that the demand deposits recorded an annual change of 4.06% compared to the previous year.

In addition, 1999 saw an increase in the demand deposits amounting to LD 4512.5 million. Therefore, the change in the absolute value amounted to LD 1504 million, a rate that is 50% higher than the value of the base year (1993); also it was followed by annual change of 8.49%.

It can be noted that 2002 saw an increase in the demand deposits, which recorded a change of an absolute value amounting to LD 2793.7 million, index value of 92.9% compared with the base year, with an annual change of 13.05%. On the other hand, it can be seen that 2004 and 2005 registered a marked improvement in terms of the increase in the size of demand deposits, which recorded LD 7683.6 and LD 9856.9 million, respectively. Furthermore, it can be noted that the change in the absolute value of demand deposits amounted to LD 4675.5 and LD 6848.8 million. Hence, it can be observed that the index value amounted by 155.4% and 227.7%, respectively compared with 1993 with the annual change of 25.39% and 28.28% respectively.

Central Bank of Libya (2005b) reported that the reasons leading to the increase of using the demand deposits in the study period, compared with the other types of the deposits provided by the Libyan state-owned commercial banking sector can be summarized as:

(i) An increase in the deposits of financial and banking institutions;
(ii) An increase in the deposits of General People's Committees and Public Departments.
(iii) A decrease in the deposits of non-banking financial public institutions, corporations and companies.

(iv) An increase in the deposits of non-financial public institutions, corporations and companies.
(v) An increase in the deposits of non-resident agencies.
(vi) An increase in the deposits of quasi-public institutions, corporations and companies.
(vii) An increase in the deposits of the private sector.
(viii) An increase in the balance of certified cheques.
(ix) A decrease in the inflow transfers.
(x) An increase in the balance of receivable branch cheques.

b) Time deposits

As can be seen in Tables 4.4, 4.5 and 4.6, the Libyan state-owned commercial banks witnessed a dramatic increase in the volume of the time deposits in the period concerned. Consequently, in 1996 the value of time deposits recorded a rise of LD 1750.3 million, which increased in the absolute value by LD 608.1 million and by the rate of 53.2% comparing with the base year (1993). Also, it can be noted that the annual change reached 20.7%.

On the other hand, 1999 saw an increase in the value of time deposits, which has recorded LD 2221.1 million. Also, it can be seen that the change in the absolute value amounted LD 1078.9 million. As a result, it can be observed that in 1999 the index value was 94.5% with an annual change of 5.4%.

2002 recorded an increase in the volume of the time deposits, which amounted to LD 2346.3 million with the absolute value of LD 1204.1 million and an index value of 105.4% compared with the base year. In the same period, it can be seen that this type of deposits recorded a decrease by LD 401.1 million with the annual change of 14.6% compared with 2001. On the other hand, in 2001 time deposits amounted to LD 2747.6 million, an annual change of 20.9% on the previous year.

In addition, 2004 and 2005 recorded a marked improvement of time deposits which amounted to LD 2909.2 and LD 3735.4 million, respectively. Also, it can be noted that the change in the absolute value reached LD 1767 and LD 2593.2 million, respectively. On the other hand, the index value reached 55% and 227%, respectively compared with the base year (1993). Therefore, the annual change was recorded at 3% and 28.4%, respectively. This demonstrates that 2005 recorded the largest amount of time deposits compared with the previous years of the study period.

Accordingly, Central Bank of Libya (2005b) identified a number of reasons that led to an increase of the time deposits value in the Libyan state-owned commercial banking sector which are summarized as:

(i) An increase in the deposits of financial banking institutions. This increase is attributed to an increase in the deposits of specialized banks with commercial banks;

(ii) A decrease in the deposits of non-banking financial public institutions, corporations and companies;

(iii) A decrease in the deposits of non-financial public institutions, corporations and companies;

(iv) An increase in the deposits of quasi public institutions, corporations and companies;

(v) An increase in the deposits of the private sector;

(vi) An increase in the balance of cash insurance.

b) Saving deposits

From Table 4.4, 4.5 and 4.6 it can also be seen that the study period had witnessed a slight increase in the value of savings deposits in the Libyan state-owned commercial banks. This indicated that 1996 recorded a clear increase in the amount of savings deposits, which recorded LD 239.8 million. Therefore, 1996 recorded an increase in the absolute value of savings deposits, which amounted to LD 88.3 million. Also, it can be observed that the index value of savings deposits recorded 58.3% compared with the base year (1993). Thus, in 1996 it can be said that savings deposits recorded an annual change rate 11.9%.

On the other hand, in 1999 savings deposits amounted to LD 347.6 million. As a result, it can be seen that the absolute value recorded a clear change reaching LD 196.1 million. Also, it can be observed that the index value and annual change reached 129.4% and 20.9%, respectively.

Also, the data for 2002 show that the savings deposits increased to reach LD 559.7 million, which was followed by the change in the absolute value amounting to LD 408.2 million. Furthermore, the index value and annual change recorded 269% and 10.5%, respectively.

Ultimately, in 2005 the Libyan state-owned commercial banks recorded an increase in the value of savings deposits, which amounted to LD 671.3 million up by 519.8 and by rate of 343.1% compared with the base year. Consequently, it can be noted that the increase of the savings deposits in 2005 was lower than in 2004 (LD 534.4 million). As a result, the annual change of 2005 recorded a decrease by 2.1%.

d) Total deposits

From Tables 4.4, 4.5 and 4.6 it can be concluded that the study period (1993 to 2005) witnessed a gradual evolution of total deposits within the Libyan state-owned commercial banking sector. 1996 recorded an increase of total deposits, which amounted to LD 5879 million. Also, it can be noted that the absolute value of the total deposits increased to LD 1577.2 million. As a result, index value and the annual change of the total deposits are recorded at 37% and 6.8%, respectively.

Tables 4.4, 4.5 and 4.6 also demonstrate that the value of total deposits increased in 1999 to LD 7081.2 million. The absolute value recorded LD 2779.4 million, whereas the index value and the annual change of the total deposits relating to the five Libyan state-owned commercial banks were 65% and 8% respectively.

In 2002, total deposits in the Libyan state-owned commercial banks increased gradually to reach LD 8707.8 million. Also, it can be observed that the absolute value increased to reach LD 4406 million. In contrast, an index value and the annual change of the total deposits in 2002 were recorded at 102% and 3.8% respectively.

In 2004 the value of total deposits in the Libyan state-owned commercial banks amounted to LD 11278.7 million. Accordingly, it can be noted that the absolute value was recorded at LD 6976.9 million. On the other hand, it can be noted that an index value and the annual change of the total deposits recorded 162% and 17.9%, respectively. Finally, in 2005 the volume of total deposits was LD 14263.6 million up by the absolute value LD 9961.8 million, an index value of 232% and annual change of 26.5%.

4.3.3. Developments and Trends in Loans and Credit Facilities in the Libyan State-owned Commercial Banking Sector

Granting loans is considered as one of the main functions of the commercial banking sector, and is also considered as the main source of the commercial banks in terms of providing the necessary liquidity and achieving profits. Consequently, the commercial banks use the available liquidity in order to achieve profits. Thus, they seek to maximize their profits by pursuing different types of investments, by granting loans and credit facilities. As a result, the deposits funds are considered as the most important aspect of the liquidity sources used by the commercial banks in order to grant loans and credit facilities (Hubbard, 2000).

The backbone of the commercial banks in terms of granting loans and credit facilities is the written loan policy. Thus, the Central Bank of Libya gave considerable attention to establish and develop the credit policy of the commercial banking sector. As pointed out in Central Bank of Libya (2005a), the enactment of Law No. 1 for 2005 is considered as one of the most important steps that have been taken by the Central Bank of Libya to carry out the reorganization and overseeing tasks of the Libyan state-owned commercial banking sector. The following sections discuss further issues in loans and credit facilities of Libyan commercial banks.

4.3.3.1. The loan policy of the Libyan banking sector

Article No. 56 of Law No.1 of 2005 points out that the Central Bank of Libya identified a number of principles and rules that govern the operations of the Libyan commercial banks in terms of loans and credit facilities grants (Central Bank of Libya (2005a). Consequently, based on Central Bank of Libya (2005a: 18) the provisions of this article are divided into two sections, which are as follows:

1. *The board of directors of the Central Bank of Libya shall establish, according to the requirements of the domestic money and credit situation, international banking standards and general rules for the control and supervision of banks and the other institutions in order to regulate the following matters:*
a) The method for appraising different types of bank assets.
b) The determination of the type of liquid assets and the ratio of liquidity to deposit liabilities that must be maintained.
c) Areas in which banks are prohibited to invest funds.
d) The provisions that must be available to cover assets whose value is subject to extreme fluctuation.

e) The ratios that must be observed between the value of credit and the value of credit guarantees; and the specification of credit type.
f) The ceiling on the rate of interest on all debit and credit accounts and late interest.
g) The permitted difference between interest rates and the rediscount rate set by the Central Bank of Libya on the one hand and the discount rates set by the banks for their customers on the other hand if credit instruments are suited to being rediscounted or if they are suited to a loan being obtained against them.
h) The percentage of each type of credit relative to total credit, and the setting of ceilings on the value and term of credit for all or some credit transactions for all or any banks.
i) The minimum monetary cover needed to establish documentary credits and issue letters of credit in general or with respect to a specific type of credit.
j) The maximum limits on banks' investments in securities, real-estate financing, and credit for consumption purposes.
k) The terms and conditions under which irregular loans must be repaid, and the setting aside of, and exemption from, interest calculated thereon.
l) The rules and facilities needed to regulate clearing operations between banks subject to the provisions of this law.

2. In addition to the rules stipulated in the previous paragraph, the Central Bank of Libya shall establish the following:
a) Disclosure rules, the statements that must be published, and the method of publication.
b) The rules needed to counter money-laundering operations and the financing of terrorism.
c) The rules and requirements with which bank managers must comply.
d) The minimum capital adequacy criterion.
e) Rules for opening accounts and engaging in banking activities.
f) The criteria required for the classification and irregular classification of the loans and credit facilities provided by banks. Each bank shall establish the measures that must be taken to cover irregular loans and credit facilities. In addition, auditors shall be required to ascertain whether the bank management observes these criteria.
g) The rating and classification of banks according to domestic and international banking criteria.
h) *Any monetary, financial, and other credit issue consistent with the Central Bank of Libya's objectives and conducive* to achieving the interest of the national economy.

Based on Central Bank of Libya (2005a), Law No.1 of 2005 indicated that the Central Bank of Libya gives powers to the commercial banking sector to determine the rules and procedures related to the process of the loan facilities. This meant that commercial banks have to design their own written loan policy which has to be designed with the framework of the Central Bank written credit policy in mind. Practically, the written loan policy is the main method followed by the commercial banks in order to choose the appropriate types of loans by ensuring the authenticity of the data and information submitted by the borrower and determining the types and values of the guarantees provided by the borrower. As a result, in the recent period the Central Bank of Libya issued a number of resolutions (decisions) relevant for the monetary policy. According to Central Bank of Libya (2005b and 2006a) these resolutions are:

(i) Resolution No. 7 of 2004 to raise the ceiling of the loans and credit facilities granted by commercial banks per person from 5% to 15% of the total capital and reserves of the commercial bank without the need for permission of the Central Bank of Libya; furthermore, this proportion may increase by the consent of the Central Bank of Libya.

(ii) Resolution No. 8 of 2004 to reduce the rediscount rate, which is applied by the Central Bank of Libya from 5.0% to 4.0%.

(iii) Resolution No. 10 of 2004 on the organization of the real estate loans which are granted by the commercial banks.

(iv) Resolution No. 16 of 2004 on the reduction of the maximum rate of interest on the loans and credit facilities for productive purposes from 7.0% to 3.0%

(v) Resolution No. 28 of 2004 to give permission to the commercial banks in order to grant loans and credit facilities to the foreign companies that are implementing projects in Libya.

(vi) Resolution No. 15 for 2005 related to the reduction of the interest rates on the commercial banks deposits at the Central Bank of Libya from 2.5% to 1.75%.

(vii) Resolution No. 32 for 2005 related to the establishment of the monetary policy Committee in the Central Bank of Libya.

(viii) Resolution No. 36 for 2005 on the liberalization of the interest rates on the clients deposits in the Libyan commercial banks.

(ix) Resolution No. 39 for 2005 on the unification of the interest rates on all loans and credit facilities granted by the Libyan commercial banks should be equivalent to the price of the discount to the Central Bank of Libya plus a percentage of not more than 2.5%.

According to the Central Bank of Libya (2001; 2004; 2005; 2006a; 2006b and 2006c), the loans and credit facilities that are considered as the main areas of resource utilization of the Libyan commercial banking sector are: loans to economic and services activities which included several sectors such as oil, electricity transportation education, security, agriculture, industrial, etc.; housing loans; Great Man-Made River

Project loans; and social loans. Therefore, the main types of loans granted by the Libyan commercial banking sector are as follows:

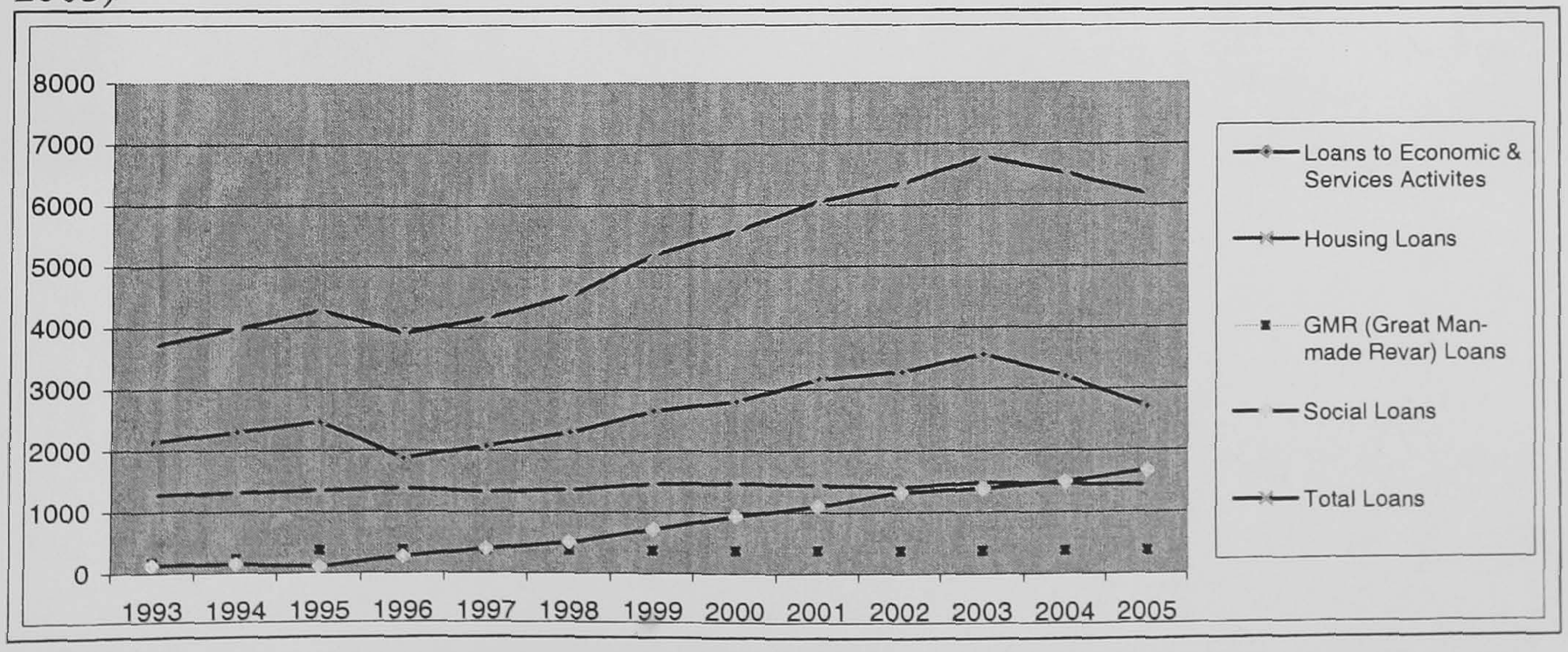
Table 4. 7: Loans Granted by Libyan State-owned Commercial Banks (1993 to 2005)

(Million Libyan Dinars)

Loans / *Years*	Loans to Economic & Services Activities	Housing Loans	Great Man-Made River Loans (GMR)	Social Loans	Total Loans
1993	2133.4	1279.5	170	127.3	3710.2
1994	2296.1	1310.1	230	149.9	3986.1
1995	2462.7	1343.5	373	102.3	4281.5
1996	1877.9	1389.7	373	274.4	3915
1997	2072.0	1326.0	373	394.9	4165.9
1998	2290.8	1360.4	373	506.0	4530.2
1999	2647.9	1459.7	373	723.0	5203.6
2000	2802.9	1468.9	373	939.2	5584.0
2001	3156.0	1436.9	373	1091.7	6057.6
2002	3269.8	1398.1	373	1316.9	6357.8
2003	3549.0	1472.1	373	1381.0	6775.1
2004	3194.2	1456.2	373	1486.9	6510.3
2005	2701.6	1426.3	373	1665.7	6166.6

Source: Economic Bulletin; Central Bank of Libya, various issues.

Figure 4. 2: Loans Granted by Libyan State-owned Commercial Banks (1993 to 2005)



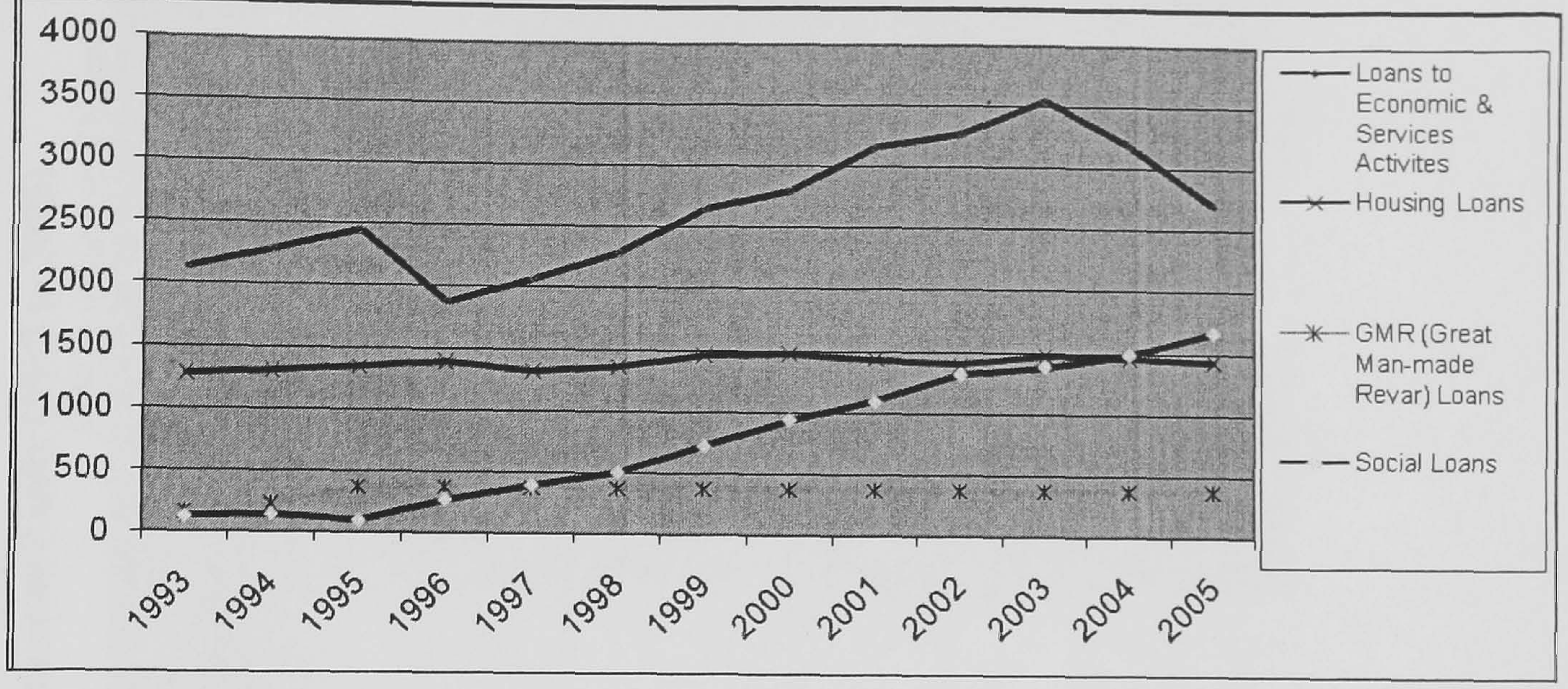
According to Central Bank of Libya (2005a) Law No. 1 for 2005 shows that the process of granting loans, especially short-term loans, is considered as the main objective of the commercial banking sector. From a number of economic bulletins that are issued by the Central Bank of Libya it can be noted that the function of granting loans is considered as the most important task of the Libyan commercial banking sector. Thus, it can be seen that the study period (1993 to 2005) witnessed a remarkable evolution related to the amount of loans granted by the Libyan state-owned commercial banks. Table 4.7 and Chart 4.2 show the improvement of the performance of the Libyan state-owned commercial banking sector related to loans granted in the study period (1993 to 2005).

Table 4. 8: The Percentage Distribution of Various Loan Categories in the Libyan State-owned Commercial Banks (1993 to 2005)

(Million Libyan Dinars)

Loans / Years	Loans to Economic & Services Activities	% Total	Housing Loans	% Total	Great Man-Made River Loans (GMR)	% Total	Social Loans	% Total	Total Loans	% Total
1993	2133.4	57.50	1279.5	34.49	170	4.58	127.3	3.43	3710.2	100%
1994	2296.1	57.60	1310.1	32.87	230	5.77	149.9	3.76	3986.1	100%
1995	2462.7	57.52	1343.5	31.38	373	8.71	102.3	2.39	4281.5	100%
1996	1877.9	47.97	1389.7	35.50	373	9.53	274.4	7.01	3915.0	100%
1997	2072.0	49.74	1326.0	31.83	373	8.95	394.9	9.48	4165.9	100%
1998	2290.8	50.57	1360.4	30.03	373	8.23	506.0	11.17	4530.2	100%
1999	2647.9	50.89	1459.7	28.05	373	7.17	723.0	13.89	5203.6	100%
2000	2802.9	50.20	1468.9	26.31	373	6.68	939.2	16.82	5584.0	100%
2001	3156.0	52.10	1436.9	23.72	373	6.16	1091.7	18.02	6057.6	100%
2002	3269.8	51.43	1398.1	21.99	373	5.87	1316.9	20.71	6357.8	100%
2003	3549.0	52.38	1472.1	21.73	373	5.51	1381.0	20.38	6775.1	100%
2004	3194.2	49.06	1456.2	22.37	373	5.73	1486.9	22.84	6510.3	100%
2005	2701.6	43.81	1426.3	23.13	373	6.05	1665.7	27.01	6166.6	100%

Figure 4. 3: Loans Granted by Libyan State-owned Commercial Banks (1993 to 2005)



Based on Table 4.8 and Figure 4.3 it can be seen that the loans granted to the economic and service activities in the period of 1993 to 1996 recorded the highest amount compared with the other types of loans such as housing loans, the Great Man-Made River loans and the social loans. Consequently, the ratios of each loans granted to the total loans in this period are 55.2% related to the economic and services activities, 33.5% to the housing sector, 7.2% to the Great Man-made River project and 4.1% to the social loans compared with the total loans.

On the other hand, it can be seen that during the period of 1997 to 2003 the loans which were granted for economic and service activities were in the first rank by an average of 51.2%, followed by the housing loans in the second rank with an average of 25%, social loans in the third rank with an average 16.4% and the Great Man-Made River loans in the fourth rank with an average of 6.8% compared with the other loans.

Finally, 2004 and 2005 recorded that the loans granted to the economic and services activities were in the first rank with an average of 46%, the social loans in the second rank with an average of 24.9%, housing loans in the third rank with an average of 22.7% and the Great Man-made River loans were in the fourth rank with an average of 5.9%. Therefore, it can be noted that the disparity in the volume of loans granted by the Libyan banking sector is linked to the policy of the Libyan state in respect to socio-economic development. Thus, it can be said that the Libyan government has given more attention to support the activities related to socio-economic and infrastructure projects.

Table 4. 9: Change in the Absolute Value of the Loans Granted by Libyan State-owned Commercial Banks (1993 to 2005)

(Million Libyan Dinars)

Loans / *Years*	Loans to Economic & Services Activities	Change in the Absolute Value	Housing Loans	Change in the Absolute Value	Great Man-Made River Loans (GMR)	Change in the Absolute Value	Social Loans	Change in the Absolute Value	Total Loans	Change in the Absolute Value
1993	2133.4		1279.5		170		127.3		3710.2	
1994	2296.1	162.7	1310.1	30.6	230	58	149.9	22.6	3986.1	275.9
1995	2462.7	329.3	1343.5	64.0	373	60	102.3	-25.0	4281.5	571.3
1996	1877.9	-255.5	1389.7	110.2	373	203	274.4	147.1	3915.0	204.8
1997	2072.0	-61.4	1326.0	46.5	373	203	394.9	267.6	4165.9	455.7
1998	2290.8	157.4	1360.4	80.9	373	203	506.0	378.7	4530.2	820.0
1999	2647.9	514.5	1459.7	180.2	373	203	723.0	595.7	5203.6	1493.4
2000	2802.9	669.5	1468.9	189.4	373	203	939.2	811.9	5584.0	1873.8
2001	3156.0	1022.6	1436.9	157.4	373	203	1091.7	964.4	6057.6	2347.4
2002	3269.8	1136.4	1398.1	118.6	373	203	1316.9	1189.6	6357.8	2647.6
2003	3549.0	1415.6	1472.1	192.6	373	203	1381.0	1253.7	6775.1	3064.9
2004	3194.2	1060.8	1456.2	176.7	373	203	1486.9	1359.6	6510.3	2800.1
2005	2701.6	568.2	1426.3	146.8	373	203	1665.7	1538.4	6166.6	2456.4

Table 4. 10: The Index Value of the Loans Granted by Libyan State-owned Commercial Banks (1993 to 2005)

(Million Libyan Dinars)

Loans / *Years*	Loans to Economic & Services Activities	Index Value	Housing Loans	Index Value	Great Man-Made River Loans (GMR)	Index Value	Social Loans	Index Value	Total Loans	Index Value
1993	2133.4	1.0	1279.5	1.00	170	1.00	127.3	1.00	3710.2	1.00
1994	2296.1	1.08	1310.1	1.02	230	1.35	149.9	1.18	3986.1	1.07
1995	2462.7	1.15	1343.5	1.05	373	2.19	102.3	0.80	4281.5	1.15
1996	1877.9	0.88	1389.7	1.09	373	2.19	274.4	2.16	3915.0	1.06
1997	2072.0	0.97	1326.0	1.04	373	2.19	394.9	3.10	4165.9	1.12
1998	2290.8	1.07	1360.4	1.06	373	2.19	506.0	3.97	4530.2	1.22
1999	2647.9	1.24	1459.7	1.14	373	2.19	723.0	5.68	5203.6	1.40
2000	2802.9	1.31	1468.9	1.15	373	2.19	939.2	7.38	5584.0	1.51
2001	3156.0	1.48	1436.9	1.12	373	2.19	1091.7	8.58	6057.6	1.63
2002	3269.8	1.53	1398.1	1.09	373	2.19	1316.9	10.34	6357.8	1.71
2003	3549.0	1.66	1472.1	1.15	373	2.19	1381.0	10.85	6775.1	1.83
2004	3194.2	1.50	1456.2	1.14	373	2.19	1486.9	11.68	6510.3	1.75
2005	2701.6	1.27	1426.3	1.11	373	2.19	1665.7	13.08	6166.6	1.66

Table 4. 11: The Annual Change in the loans Granted by Libyan State-owned Commercial Banks (1993 to 2005)

(Million Libyan Dinars)

Loans / *Years*	Loans to Economic & Services Activities	Annual Change	Housing Loans	Annual Change	Great Man-Made River Loans (GMR)	Annual Change	Social Loans	Annual Change	Total Loans	Annual Change
1993	2133.4		1279.5		170		127.3		3710.2	
1994	2296.1	7.6%	1310.1	2.4%	230	35.3%	149.9	17.80%	3986.1	7.4%
1995	2462.7	7.3%	1343.5	2.5%	373	62.2%	102.3	-31.8%	4281.5	7.4%
1996	1877.9	-23.7%	1389.7	3.4%	373	0.0%	274.4	168.2%	3915.0	-8.6%
1997	2072.0	10.3%	1326.0	-4.6%	373	0.0%	394.9	43.9%	4165.9	6.4%
1998	2290.8	10.6%	1360.4	2.6%	373	0.0%	506.0	28.1%	4530.2	8.7%
1999	2647.9	15.6%	1459.7	7.3%	373	0.0%	723.0	42.9%	5203.6	14.9%
2000	2802.9	5.9%	1468.9	0.6%	373	0.0%	939.2	29.9%	5584.0	7.3%
2001	3156.0	12.6%	1436.9	-2.2%	373	0.0%	1091.7	16.2%	6057.6	8.5%
2002	3269.8	3.6%	1398.1	-2.7%	373	0.0%	1316.9	20.6%	6357.8	5.0%
2003	3549.0	8.5%	1472.1	5.3%	373	0.0%	1381.0	4.9%	6775.1	6.6%
2004	3194.2	-10.0%	1456.2	-1.1%	373	0.0%	1486.9	7.7%	6510.3	-3.9%
2005	2701.6	-15.4%	1426.3	-2.1%	373	0.0%	1665.7	12.0%	6166.6	-5.3%

Tables 4.9, 4.10 and 4.11 show the evolution of the loans granted by the Libyan state-owned commercial banking sector from 1993 to 2005 (the study period). As previously stated, 1993 is considered as a base year of the study period, so the changes in the absolute value, index value and annual change during this period are as follows:

(i) Loans to economic and services activities

In general, from Tables 4.9, 4.10 and 4.11 it can be seen that there was fluctuation in the process of granted loans to the economic and services activities sector in the early years of the study period. It is notable that the loans for economic activities and services granted by the Libyan state-owned commercial banks in the base year (1993) amounted LD 2133.4 million. On the other hand, this type of loans increased in 1994 and 1995 to reach LD 2296.1 and LD 2462.7 million, respectively compared with the base year. As a result, the change in the absolute value amounted to LD 162.7 and LD 329.3 million, an index value of 8% and 15%, respectively compared with the base year. Thus, it can be noted that the annual change of 1994 and 1995 reached 7.6% and 7.3% respectively. Furthermore, it can be observed that in 1996 this type of loan totaled LD 1877.9 million – a decrease of LD 255.5 million against the base year. Thus, it recorded an index value of -88% lower than the base year and annual change of -23.7%.

In addition, 1999 witnessed an increase in the loans granted for economic and services activities. Thus, it can be seen that the increase of this type of loans amounted LD 2647.9 million up by LD 514.5 million and an index value of 24% compared with the base year. As a result, Table 4.11 shows the annual change which reached 15.6%. On the other hand, it can be seen that in 2002 it increased to reach LD 3269.8 million, an increase in the change in the absolute value of LD 1136.4 million and an index value of 53% compared with 1993. Thus, it can be noted that the annual change reached 3.6%.

Ultimately, it can be noted that in 2005 there was a decline in the loans granted by the Libyan state-owned commercial banks to the economic activities and services sector compared with 2003 and 2004. Therefore, the increase of this type of loan amounted to LD 2701.6 million, with an increase in the absolute value recorded by LD 568.2

million and an index value of 27% compared with the base year. As a result, Table 4.11 shows a decrease in the annual change of -15.4%.

(ii) Housing loans

From Tables 4.9, 4.10 and 4.11 it can be seen that in early years of the study period the housing loans witnessed a remarkable increase. Therefore, housing loans have recorded LD 1279.5 million in the base year. Subsequently, it can be seen in 1996 and 1999 the housing loans increased to LD 1389.7 million and LD 1459.7 million, respectively. Thus, absolute value improved to reach LD 110.2 and LD 180.2 million, respectively, with an index value of 9% and 14%, respectively compared with the base year (1993). Consequently, the annual changes of 1996 and 1999 are 3.4% and 7.3%, respectively.

On the other hand, it can be noted that housing loans granted by the Libyan state-owned commercial banks registered a remarkable decrease in 2002 compared with 1999, 2000 and 2001. Thus, this result is evidenced by the annual change of -2.7%. By contrast, comparing with the base year it can be noted that housing loans rose in 2002 to reach LD 1398.1 million an increase of the absolute value to LD 118.2 million and an index value of 9% compared with the base year.

Hence, in 2005 housing loans amounted to LD 1426.3 million with the change in the absolute value of LD 146.8 million and an index value of 11% compared with the base year. Otherwise, it should be noted that despite the increase in the housing loans in 2005 compared with 1993. In 2005, it decreased compared with 2003 and 2004, with an annual change of -2.1%.

(iii) Great Man-Made River loans (GMR)

As can be seen in Tables 4.9, 4.10 and 4.11 and Figure 4.3, the first two years of the study period have witnessed an increase in the Great Man-Made River loans. 1993 and 1994 recorded LD 170 and LD 230 million, respectively. The rest of the study period also witnessed stability in the value of loans granted by the Libyan state-owned commercial banks for the implementation of the Great Man-Made River Project. Accordingly, the annual amounts, which were granted in the period 1995 to 2005, were LD 373 million, up by LD 203 million and, by index value of 119% compared with the base year. The annual change of the Great Man-Made River loans recorded 35.3% and 62.2% in 1994 and 1995, respectively. Otherwise, Table 4.11 shows that there was no annual change for the rest of the years of the study period (1993 to 2005).

(iv) Social loans

According to Tables 4.9, 4.10 and 4.11 it can be seen that during the study period, social loans granted by the Libyan state-owned commercial banking sector witnessed a dramatic increase, except in 1995. Table 4.9 shows that in 1995 this type of loan amounted to LD 102.3 million, which indicates a decline in the absolute value amounting to LD -25 million and an index value of -80% compared with the base year. It can also be noted that the annual change of the social loans in 1995 was31%.

Social loans reached the amount of LD 274.4 million in 1996 with the absolute value of LD 147.1 million and an index value of 116% compared with the base year. Also, it can be seen that the annual change of the social loans granted by the Libyan state-owned commercial banks in 1996 was 168.2%. In addition, it should be noted that the social loans granted by the Libyan state-owned commercial banks in 1999 increased to reach LD 723 million. As a result, the absolute value of this type of loans was LD 595.7 million, by an index value of 468% compared with 1993 and an annual change of 42.9%.

2002 witnessed an increase in the social loans granted by the Libyan state-owned commercial banks which amounted to LD 1316.9 million, a change in the absolute value by LD 1189.6 million and an index value of 934% compared with the base year. On the other hand, it can be noted that the annual change of this type of loans is 20.6%.

Ultimately, 2005 has seen a significant rise in the volume of social loans granted by the Libyan state-owned commercial banks which amounted to LD 1665.7 million, the increase in the absolute value of LD 1538.4 million, an index value of 1208% compared with 1993 and the annual change of 12%.

(v) Total loans

Tables 4.9, 4.10 and 4.11 show that the study period (1993 to 2005) witnessed a dramatic improvement in the total loans granted by the Libyan state-owned commercial banks. Therefore, it can be seen that in 1993 the total loans value was LD 3710.2 million, and this is contrasted with 1996 where a decrease is recorded in the total value of loans granted which amounted to LD 3915 million, compared with 1994 and 1995 that amounted to LD 3986.1 and LD 4281.5 million, respectively. Thus, in 1996 total loans increased by the absolute value of LD 204.8 million, index value of 6% compared with the base year (1993). However, the annual change of the total loans recorded a decrease of 8.6%.

In 1999, it can be seen that the total loans amounted to LD 5203.6 million, which registered an increase in the absolute value to reach LD 1493.4 million, with an index value of 40% compared with 1993. On the other hand, it can be noted that the total loans recorded an annual change of 14.9%.

The value of total loans thus advanced by the Libyan state-owned commercial banks continued in a markedly increasing trend. Accordingly, in 2002 the total loans amounted to LD 6357.8 million, change in the absolute value of LD 2647.6 million and an index value of 71% compared with the base year; consequently the annual change was recorded at 5%.

In contrast, the total loans granted by the Libyan state-owned commercial banks in 2005 decreased compared with the prior three years (2002, 2003 and 2004). On the other hand, 2005 has scored an increase in the absolute value of the total loans which amounted to LD 2456.4 million and an index value of 66% compared with the base year (1993). As a result it can be seen that the annual change has recorded a decrease of 5.3%.

Ultimately, it can be noted that the loans granted to the economic and services activities sector constituted the largest proportion of the components of the loan portfolio of the Libyan state-owned commercial banks. Hence, it had the greatest impact on total loans compared with the other components of the loan portfolio. Thus, the evolution of the total loans granted in the study period is linked with the size of the loans granted for economic and service activities.

Finally, it can be noted that these banks are owned and operated by the Libyan state. Therefore, in the majority of cases, the loans and credit facilities were granted on the basis of instructions from the higher authorities in the state. Thus, the changes in the loans granted to different sectors by the Libyan state-owned commercial banks shown in Tables 4.7, 4.8, 4.9, 4.10 and Figures 4.2 and 4.3 are due to the Libyan state's policies rather than the economic and financial activity in the country. Therefore, it can be concluded that the increase and decrease in the volume of these loan categories are linked with the state's policies related to socio-economic and infrastructural development. On the other hand, Central Bank of Libya (2005b) mentioned that Libyan banks failed to recover the majority of their loans, particularly those granted to the public sector.

4.4. NON-PERFORMING LOANS IN THE LIBYAN STATE-OWNED COMMERCIAL BANKING SECTOR

Central Bank of Libya (2006c) mentions that the Libyan banking sector has a number of credit determinants relevant to the process of granting credit. A credit determinant was defined as "a set of controls and conditions established by the regulatory authorities of economic activity in the country in order to regulate the process of granting credit" (Central Bank of Libya 2006a: 5). Thus, Central Bank of Libya (2006a) pointed out that the credit determinants in the Libyan economy are placed by the Central Bank of Libya but sometimes the commercial banks could place their own credit determinants in order to avoid certain credit risks, especially non-performing loans .

Reports such as Central Bank of Libya (2006a) and Central Bank of Libya (2006c) pointed out that there are a number of credit determinants set by the Central Bank of Libya as follows:

1. Compulsory reserve ratio on the deposits.
2. Legal liquidity ratio.
3. Proportion of the loan to the collateral.
4. Lending limits proportion per customer.
5. The cash insurance on the credits and collateral.
6. Credits and facilities to the foreign companies.
7. Proportion of the credit to deposits.

8. Capital adequacy ratio.

Report of Central Bank of Libya (2006c) mentions that despite the existence of credit determinants in the Libyan banking sector, the Libyan state-owned commercial banks have been exposed to the problem of non-performing loans. Central Bank of Libya (2006b) points out that the non-performing loans data related to the Libyan state-owned commercial banks were only available for the period of 2003 to 2005. In view of this, the volume of the non-performing loans which faced the Libyan state-owned commercial banks in the period of 2003-2005 is as follows:

Table 4. 12: Volume of Non-performing loans

(Million Libyan Dinars)

Year	Non-performing loans (NPLs)	Change in the Absolute Value	Annual % Change
2003	2313.6		
2004	2688.6	375	16.21%
2005	949.6	-1364	-64.68%

Source: (Central Bank of Libya, 2006b).

Table 4.12 shows the size of non-performing loans that have emerged in the balance sheets of the Libyan commercial banks in 2003, 2004 and 2005. Therefore, it can be seen that 2004 witnessed an increase in the volume of non-performing loans which amounted to LD 6510.3 million, with change in the absolute value of LD 375 million. However, the annual change recorded an increase of 16.21%. Also, it can be noted that 2005 saw a remarkable decrease in the amount of non-performing loans which reached LD 949.6 million. Therefore, the absolute value recorded a decrease of LD 1364 million. However, the annual change of non-performing loans registered a decrease of 64.68%.

Table 4. 13: Percentage of Non-performing Loans to Total Loans granted

(Million Libyan Dinars)

Year	Total Granted loans	Non-performing loans (NPLs)	Non-Performing Loan to Total Loans Ratio
2003	6775.1	2313.6	34.15%
2004	6510.3	2688.6	41.30%
2005	6166.6	949.6	15.40%

In contrast, Table 4.13 shows the ratio of the non-performing loans to total loans granted by the Libyan state-owned commercial banks in the same years. Thus, in 2003 the proportion of non-performing loans to total loans was 34.15%, which increased to 41.30% in 2004. However, 2005 witnessed a decline in the volume of non-performing loans, which recorded 15.40% of total loans.

In addition, Central Bank of Libya (2006b) reports that the decline of the non-performing loans from the beginning of 2005 is related to a number of reasons. These reasons are related to the determinants and rules that have been imposed by the Central Bank of Libya as well as the determinants and rules that have been developed by the Libyan state-owned commercial banks. Also, it must be noted that the issuance of Law No. 1 (2005) increased the powers of the Central Bank of Libya and affiliated banks in the development of the determinants of the process of granting credit. Therefore, the increased power of the Central Bank of Libya meant the total control of the commercial banking sector, which may have moderated the appearance of non-performing loans.

It can also be noted that in spite of the determinants imposed by the Central Bank of Libya with the objective of organising the process of granting and following-up loans and credit facilities, the problem of non-performing loans still exists. This is due to the fact that the majority of non-performing loans exposed in the Libyan state-owned commercial banks have emerged as a result of the political decisions of the state. Furthermore, the role of bureaucracy, and the use of personal relations has furthered the emergence of non-performing loans. However, in recent years, despite the present political economy nature of the political system, the 'governance' issues has become an important issue in Libya as well, which so far had some consequences for the banking sector, as the non-performing loans are affecting the real economy of the country.

4.5. CONCLUSION

This chapter attempted to analyze and present the Libyan state-owned commercial banking sector and their loan facilities. Thus, it provides a historical overview on the emergence of the Libyan banks in general and the state-owned commercial banks in particular. Therefore, it can be seen that this chapter is divided into a several sections, which are linked with specific events and periods related to the Libyan economic environment.

The first stage (1551 to 1911) was linked with the emergence of the Ottoman Empire in the North Africa region, which was marked by the absence of native Libyan banks. By contrast, it was marked by the emergence of the first Turkish bank, which was followed by the creation of the Italian banks.

The second stage (1911 to 1942) was linked with the Italian occupation of Libya, which was characterized by the establishment of more Italian banks followed by the absolute control by the Italian banks over all the Libyan economic activities.

The third stage (1943 to 1952) was characterized by the end of absolute Italian control and the beginning of the authority of the British military administration. On the other hand, the third stage saw the emergence of new banks such as Barclays Bank and Arab Bank.

The fourth stage (1952 to 1962), which is known as the Pre-Libyanization stage, was characterized by the establishment of new foreign banks, for instance, Tunisian-Algerian Bank, Egyptian Bank, the British Bank of the Middle East, Bank of America and the Morgan Guaranty Bank. Also, this stage was marked by the creation of the Libyan National Bank, which is considered as the first Libyan bank.

The fifth stage (1963 to 1970) is known as the Libyanization stage, which was marked by the issuance of the Law No. 4 of 1963 for the Libyanization of the foreign banks. As a result, some of the foreign banks had carried out this law. Also, this stage was marked by the emergence of the Al-Fateh Revolution in 1968, which led to many changes in the Libyan economy such as, creating a new Libyan bank and the emergence of the decision of the Revolution Command Council to convert all the foreign banks to Libyan stock companies as part of the Libyanization policies.

The sixth stage (1970 to 1993) was marked by the issuance of Law No. 153 of 1970 related to the nationalization of the foreign banks. So, this period is called the Nationalization stage. As a result, all the foreign banks that were operating in Libya became Libyan state-owned. Thus, the new banks that were founded in this stage are:

Sahara Bank, Umma Bank, Al-Gumhoria Bank, National Commercial Bank and Al-Wahda Bank.

The seventh stage (1993 to 2005) was marked by the enactment of Law No. 1 of 1993, which allowed the establishment of private banks. As a result, Commercial and Development Banks, Regional (Ahliah) Banks, Al-Ijmaa Alarabi Bank and Al-Amann Bank for investment and trade were created in this stage. It should be noted that this stage saw remarkable events at the domestic and international levels. Consequently, this stage has been selected as the study period.

This chapter focused mainly on the evolutionary development of the Libyan state-owned commercial banks from 1993 to 2005 by discussing interest rates, deposits and loans and credit facilities. Also, it has spotlighted the Libyan banking sector loan policy. Ultimately, it has pointed out the non-performing loans problem which emerged in the Libyan state-owned commercial banks.

Chapter 5

RESEARCH METHODOLOGY

5.1. INTRODUCTION

Research is the mainstay of development and improvement in all fields. Therefore, the results of researches are used to determine the dimensions of various institutions, which encounter problems caused by the random decisions which they may take and which lead to the loss of effort, time and money. On the other hand, research is one of the tools used by institutions and individuals in terms of solving problems. However, the methods of research may differ within the various research fields. Consequently, research methodology has become one of the important objectives of the research.

The term research methodology consists of two parts i.e. research and methodology. Thus, the first part of this chapter highlights on the aspects of research, while the second part covers the subject of the methodology used to collect and analyze data.

5.2. DEFINING AND DESCRIBING RESEARCH

Research may be described as a discovery process of the past, present and future, and the research results may be wrong or right and often subject to criticism as well (Ryan *et al.*, 1992).

Despite the varied definitions of the term 'research', there are similarities in terms of procedures and objectives. For example, Blumberg *et al.* (2005: 41) defines research as "any organised inquiry that is carried out in order to provide information that can be used to solve problems". Sekaran's definition (1984: 3) refers to similar issues: "an organised, systematic, data-based, critical, scientific inquiry or investigation into a specific problem, undertaken with the objective of finding answers or solutions to it". Even so, Clardy (1997: 3) defines research as "the systematic and controlled process of collecting and analysing information necessary or useful to the efficient and effective provision of human resources development programs". Extending this definition, Sufian (2004: internet edition) states that research is a "detailed presentation or in-depth study representing an exposure to a new reality or emphasis on the old fact which has been previously discussed, and the addition of anything new, or getting a solution to a particular problem". Through a review of a set of definitions of research, Collis and Hussey (2003: 1) suggests that there are three aspects of the research: "(1) Research is a process of enquiry and investigation (2) It is systematic and methodical (3) Research increases knowledge".

Briefly, based on these definitions it can be concluded that the main reason for conducting research is to provide adequate information on the problem to be solved. However, these definitions are limited in a number of points, specifically in the form of procedures which have to be followed by the researcher to reach the desired goals. On the other hand, research is a continuing and evolving process through practical steps linked to each other. Therefore, any disruption at any point of the previous stages will affect the rest of the phases and especially the final stage which takes the form of the final results of the research.

The research process is divided into three main sections, and the absence of one section will lead to the failure of the process to obtain the desired results of the research. The first element for the completion of any research is the availability of the information (data) on the problem to be solved. Zikmund (1991: 6) suggests that research (re-search) means "search again". So, the information which is provided to the researcher usually is not enough to reach a sound result on the problem. Accordingly, the researcher should re-examine the basic information with the need to search for additional information, which leads to help to find a solution of the problem to be solved. Blumberg *et al.* (2005) mention that research helps in providing information that could be used to improve the knowledge and skills of researchers to avoid or to resolve the problems, which already exist and/or anticipated.

As part of the process understanding, Clardy (1997) states that the completion of the data collection does not mean the completion of all aspects of the research process. Consequently, research methods are considered as the basic foundation for the process of data analysis. Thus, the researcher attempts to choose appropriate methods for the analysis of those compiled data (Cassell and Symon, 2004).

Sekaran (1984) argues that the ultimate objective of conducting any research is to provide the final result whether to increase the volume of knowledge or solve a particular problem. Hence, the third element is to present the final results of the research, and sometimes researchers prepare a summary, often in the form of a report (Clardy, 1997).

It should be noted that each of these three elements constitute the nature of this research, and this chapter aims to provide detail account of each of these stages in the following sections.

5.3. TYPES OF RESEARCH

Contributors on scientific research have different views regarding types of research. Therefore, some of the authors have divided the types of research, depending on the nature of the research, into basic research and applied research. Also, other authors have divided research, according to the methods that have been used to conduct the research, into documentary research, field research, and the empirical research.

5.3.1. Types of Research According to the Nature of the Research

Research in general classified into two according to the nature of the research: basic research and applied research.

5.3.1.1. Basic research is conducted in order to increase the level of knowledge, which is not used to solve problems that occur in the present, but it is used in the study of problems or phenomena that occurred in the past and the ways to remedy them. Also, this type of research is called pure or fundamental research, which aims to study some problems in several organizations and institutions either at home or abroad. Thus, the results of basic research could be used to solve the problems that might arise in the future Sekaran, (1984).

It can be stated that basic research is theoretical and experimental which works in turn to acquire new knowledge, with the possibility of using that knowledge to reach the solution of the problems which may arise in the future.

5.3.1.2. Applied research is conducted to find a solution to a specific problem. Practically, the decision-maker seeks to avoid making wrong decisions by using the results obtained from the applied research. Accordingly, the main aims of the applied research are to answer the questions that have been raised about a specific problem, therefore, the use of those answers are aimed to make sound decisions (Zikmund, 1991). Thus, the objectives of applied research are more accurate than basic research, which is due to the fact that applied research is conducted to solve existing problems or to discover new knowledge.

In addition, Zikmund (1991) argued that both basic research and applied research seek to answer research questions. Thus, both types research use scientific methods to undertake the tasks of research and analysis. This study benefits from both the research types.

5.3.2. Types of Research According to Methods Used

Research is also categorised as descriptive research and historical research according to the methods used: descriptive research, historical research and lastly experimental research.

5.3.2.1. Descriptive research aims to describe certain events or phenomena through the collection of facts and information. In addition, descriptive research is used in order to describe the special circumstances of these phenomena and events by using multiple methods such as observation, interview, and questionnaire (Almture, 2006). Conversely, Zikmund (1991: 32) mentions that the descriptive research aims to determine the answers to "who, what, where, and how questions".

5.3.2.2. Historical research depends on the sources and documents which have been prepared in the past. Practically, historical research is used in the event of study phenomena and problems that are difficult to solve by using other methodological tools (Mason *et al.* 1997). As Almture (2006) argues the historical researcher depends on primary and secondary sources to obtain scientific articles, which are necessary to complete the study.

5.3.2.3. Experimental research aims of this type of research are to examine the problems and phenomena on the basis of experimental curriculum or scientific research curriculum. Therefore, scientific experiment is considered as the major source to reach the results or solutions of the problems, which have been examined by empirical research (Almture, 2006).

This study should be mainly considered as a descriptive research, which aims to measure the perceptions of individuals regarding the established research questions. However, it also benefits from historical and experimental research in various stages.

5.4. RESEARCH DESIGN

Research design is considered as the structure that define the operations carried out by the researcher for data collection and analysis in order to highlight the results, which are related to the search questions (Creswell, 2009). Vaus, (2001: 9) states that the function of a research design is "to insure that the evidence obtained enables us to answer the initial question as unambiguously as possible". This definition is supported by Yin, (2003: 20) who defines research design as "the logical sequence that connects the empirical data to the study's initial research questions and, ultimately, to its conclusions". Therefore, studies should be designed and organised as a research project prior the process of data collection and analysis in order to obtain a significant results.

In addition, Nachmias and Nachmias (1996: 98) define the research design as "the program that guides the investigator as he or she collects, analyses, and interprets observations. It is a logical model of proof that allows the research to draw inferences concerning casual relations among the variables under investigation". As the definitions indicate research design is very much related to the research process. In other words, through the research design, researcher can organise all parts of the research project and link them together such as, methods of collecting and analysing data and samples. In addition, in the absence of research design, researchers usually have access to weak findings as a result of the inability to answer the research questions as required (Vaus, 2001).

This study aims to analyse non-performing loans in the Libyan state-owned commercial banks and determine the appropriate methods, which can be used to treat them. This research is, therefore, designed as a case study, as it aims to study state-owned commercial banking sector in Libya. This research is also designed as an explorative study with the objective of exploring the field for general trends.

Regarding the research strategy, social research strategies can be deductive and inductive depending on the starting point of the research. This research being an explorative research is an inductive research, which begins with exploring the field to derive general pattern that governs the social reality in question. In other words, since primary data collected from the field informs the research, it should, therefore, be considered as ground research meaning inductive research.

5.5. METHODOLOGY

The process of scientific research is considered as one of the complex activities, which aim to increase knowledge and tries to find appropriate solutions to the problems facing the institutions in their various kinds. Thus, scientists seek to give utmost importance to finding appropriate frameworks and tools in order to conduct scientific research, which are called the research methodology (Pasha, 1987). Gerring (2001) mentions that the onset of the actual use of research methodology was over the past few decades. Recently, the utilization of research methodology has increased to become one of the most important tools, which are used to assist researchers to conduct scientific research.

Asutay (2007: 1) defines the term methodology as "how one will go about studying a phenomenon". In expanding this definition, Murray and Lawrence (2000: 218) defines research methodology as "techniques that are an abstraction of reality and which are used in an orderly manner to reveal the dimensions of reality. The term 'methodology' may be taken to be inclusive of research design, theoretical frameworks, the selection and analysis of literature relevant to the nominated topic, and justified preferences for particular types data gathering activities". In addition, in referring to the framework nature of research methodology, Remenyi *et al.* (1998: 28) defines the term of methodology as "research methodology refers to the procedural framework within which the research is conduced. It describes an approach to a problem that can be put into practice in a research programme or process". To support this, Walker and Monahan (1988: 885) define methodology as "the generic term used to characterize how social scientists go about answering factual questions. It is the overall strategy or plan of attack for generating and analyzing information. A more refined appreciation of the concept requires considering its two principal components: how information is gathered, and how information, once gathered, is interpreted". Collis and Hussey (2003: 54) summarises all these definitions by emphasising its functional nature: research methodology is "the overall approach to the research process, from the theoretical understanding to the collection and analysis of the data".

Based on these definitions of methodology, it could be argued that all writers agreed that the research methodology is the process followed by researchers to find a solution for the research questions. Accordingly, the term methodology is considered as the systematic steps used by the researchers to complete their research.

According to Collis and Hussey (2003) research could also be divided according to the approaches being followed by the researcher in the process of constructing the research or in identifying the problem or the phenomenon to be studied. Asutay (2006), therefore, mentions that there are two basic approaches related to the research methodology, which are in the form of qualitative research and quantitative research.

Qualitative methodology refers to the approach followed by the researcher in order to gather and analyze the information on the situation to be studied or in their natural location (Collis and Hussey, 2003). Therefore, qualitative methodology is a set of research techniques used to interpret the phenomena. In other words, as Asutay (2007: 5) indicates "qualitative research aims to measure perceptions, understanding and behaviour". To support this, Dooley mentions that the term qualitative research refers to "social research based on non-quantitative observation made in the field and analysed in non-statistical ways" (Dooley, 1984: 267). In other words, as Punch (2005) and Bryman (2001) state qualitative research deals only with non-numerical data, which is in the form of words such as written statements, spoken or observations. Bryman (1988: 46) summarises the nature of qualitative research in stating that qualitative research methodology is the "approach to the study of the social world which seeks to describe and analyze the culture and behaviour of humans and their groups from the point of view of those being studied".

As regards to quantitative research, Collis and Hussey (2003) stressed that the second approach which is related to the research methodology takes the form of quantitative research. Bryman (1988: 12) states that quantitative methodology is "a genre which uses a special language which appears to exhibit some similarity to the ways in which scientists talk about how they investigate the natural order-variables, control, measurement and experiment". Therefore, Horck and Malmö, (n.d: 3) state that quantitative research is "the numerical representation and manipulation of observations for the purpose of describing and explaining a phenomenon that those observations reflect".

Levin *et al.* (1989) provides rationale for choosing the method of quantitative research as follows:

- The existence of a complex problem which contain a number of variables;
- The availability of data on the situation to be studied;
- Provide quantitative solutions of the problem;
- The availability of the models process on the situation that will be studied.

In relation to this study, qualitative methodology is utilised in responding to the identified research questions in fulfilling the research aim. This is due to the fact that this aims to measure the perceptions and opinions of the participants in their natural setting in relation to non-performing loans. In addition, being an explorative study, it should be considered as qualitative research.

5.6. RESEARCH METHODS: DATA COLLECTION

Cohen *et al.* (2007) and Payne and Payne (2004) argue that the research method is a set of tools that can be used by the researcher in order to identify research questions, collect and analyze data. Therefore, Jankowicz (2000: 209) defines research method as "a systematic and orderly approach taken towards the collection and analysis of data so that information can be obtained from those data". In a more formal manner, Payne and Payne (2004: 149) define research methods as "the technical practices used to identify research questions, collect and analyse data and present findings".

According to Casebeer and Verchoef (1997) there are two types of research methods, which are identified in the form of qualitative and quantitative techniques depending on the nature of the data to be collected.

Since this study aims to gather data to investigate the opinions of participants on non-performing loans in the Libyan state-owned commercial banks, quantitative research method is utilised in the form of questionnaire and qualitative research method is utilised as interviews. Utilising two different data collection and analysis methods indicates that triangulation is adapted as the research method framework.

5.6.1. Quantitative Method-Questionnaires

Questionnaires are considered as the most important technique used to collect data on certain phenomena or problems requiring study, particularly with regards to sociological research (Forcese and Richer, 1973). In addition, Forcese (1973) states that the main aim of holding questionnaires is to collect information, especially in studies that contain a large number of respondents. Therefore, Vaus (1991) argue that the questionnaires technique is widely used as a method of data collection from the respondents. On the other hand, (Gillham, 2000) mentions that poorly collected data usually leads to poor research findings. Moreover, the poorly collected data will lead to loss of time, money and effort.

According to Rugg and Petre (2007: 142), the definition of the questionnaire method is "it is, in essence, a list of questions which you have prepared beforehand. Respondents can answer these questions either in their own words, or by choosing from a set of responses that you have prepared beforehand". In addition, Collis and Hussey (2003: 173) defines questionnaire as "a list of carefully structured questions, chosen after considerable testing, with a view to eliciting reliable responses from a chosen sample. The aim is to find out what a selected group of participants do, think or feel".

Since this study aims to locate the measures, the perception and the opinion of the personnel working in the credit departments of the Libyan state-owned commercial banks, questionnaire is considered as the best method of data collection.

5.6.1.1. Types of Questionnaires

Sekaran (2003) states that there are two types of questionnaires, which are in the form of personally administered questionnaires and mail questionnaires. Firstly, personally administered questionnaires refer to the survey, which is conducted or administrated directly by the researcher. Accordingly, personally administered questionnaires allow the researcher to distribute and collect the questionnaires by him/her self or by his/her administration. Hence, Sekaran (2003) suggests a number of advantages relating to the personally administered questionnaires:

(1) The possibility to clarify any doubts,

(2) The possibility of motivating the respondents to answer the questionnaires,
(3) Reducing the expenses of administering a large number of questionnaires at the same time.

Secondly, mail questionnaires refer to the survey, which is conducted by using mailing facilities in order to distribute and collect questionnaires. This type of questionnaire is used to cover a wide geographical area, which is considered as the main advantage of the mail questionnaires. However, the main disadvantage of mail questionnaires is related to the difficulty to clarify any doubts on the spot.

5.6.1.2. Advantages and Disadvantages of Questionnaires

Gillham (2000) argues that questionnaire as a method has a number of advantages and disadvantages, which are summarized as follows:

- Collection of data at low cost in terms of money and time compared with other methods;
- The possibility of compiling information from a large number of respondents in a short time;
- Analysis of the answers on the closed questions usually is directly;
- Reduce the pressure on the respondents as a result of the flexibility and freedom they have in answering the questionnaire at the appropriate time;
- The questionnaire does not include a question on the respondent's name (respondent anonymity) which gives sufficient freedom to answer;

- The respondents are a mixture of people regardless of gender, religion, race, age, etc.;
- There are no differences in the questions contoured in the questionnaires given to each respondent;
- Scope of asking specific questions that lead to answer the hypotheses of the study.

Regarding the disadvantages of questionnaires, they are listed as follow:

- The reluctance of some respondents to answer the questionnaire;
- There are not enough motivations to encourage respondents to answer questions;
- Some questionnaires are relatively long ;
- The ambiguity of some questions may lead to misunderstanding of some respondents to answer those questions;
- The difficulty of introducing amendments on the questionnaire distributed to the respondents;
- There is no alternative method of data collection except via the questions in the questionnaires;
- Lack of sufficient expertise by respondents related on the topic under study;
- Difficulty of control on the process of answering the questionnaires, which leads to obtaining illogical answers;
- In the event of weak questions countered in the questionnaire, this could lead to obtaining substandard answers;
- Low educational level of the respondents leads to obtaining weak answers;
- The difficulty of ascertaining the credibility and the seriousness of the respondents in order to answer the questionnaire.

Since advantages of questionnaire for this study is important as it provides the easiest way of reaching out the participants, this study utilizes questionnaire as the main data gathering method.

5.6.1.3. Question Format

David and Sutton (2004) state that there are two different types of questions used in the formation of different types of questionnaires: open-ended questions and close-ended questions. Firstly, open-ended questions refer to the questionnaires, which allow the respondents to answer the questions by choosing any method he/she deems appropriate. Secondly, close-ended questions refer to the questionnaires, which give choices to the respondent in terms of choosing a quick answer among a number of alternatives.

This research utilised closed ended questions as a style of the questionnaires. In addition, the Likert scale formatting based on five categories (strongly disagree, disagree, neutral, agree and strongly agree) was utilised in the questions of the second, third, and the fourth section of the questionnaire.

5.6.1.4. Questionnaire Design

This study seeks to identify the loans that caused the emergence of non-performing loans in the Libyan state-owned commercial banks, the reasons for this and the appropriate methods which can be used to deal with non-performing loans. To achieve the aim and objectives of this research, the literature review has been used to extract the important points, which may be used as the questions to be contoured in questionnaires.

The questionnaire was designed for this study consists of four sections, which are:
(1) The first section incorporated the demographic questions,
(2) The second section contained the questions related to the types of loans that led to non-performing loans,
(3) The third section asked the reasons that led to the emergence of non-performing loans,
(4) The fourth section contains questions related to the number of tools which may be used to deal with non-performing loans in the Libyan state-owned commercial banks.

A sample questionnaire can be found in the Appendix.

Zikmund, (1991) and Payne and Payne (2004) mention that there are a number of issues that must be taken into account in the process of designing the questionnaire. Those elements are linked with the questions, which are contained in the questionnaire. Accordingly, they suggest that the questions should be related with the research problem, the questions must be as short as possible, the similarity of the meaning of questions addressed to all respondents, the clarity of the questions by avoiding ambiguity, and should take into account the capabilities of respondents.

In this study both the personally administered questionnaires and the mail questionnaires were chosen in the process of collecting data. The majority of the questionnaires were distributed and gathered by the researcher. Nevertheless, mailing was also used to cover some banks located in the far geographic areas.

5.6.1.5. Covering Letter

A covering letter was attached to the questionnaire in order to clarify the aim of the study to be achieved by the questionnaire survey. The covering letter also mentioned the aims of the study by identifying some issues related to non-performing loans that emerged in the Libyan state-owned commercial banks. Those issues are related to the types of loans that led to the emergence of non-performing loans, the reasons that caused non-performing loans and the appropriate methods to treat non-performing loans. Added to that, the covering letter has attempted to encourage the respondents by the non-inclusion of the respondents' names (anonymity).

5.7. QUALITATIVE METHOD - INTERVIEWS

Cassell and Symon (2004) states that the interview is considered as the most common qualitative research method which is used to collect primary data. Busha and Harter (1980: 78) define interview method as "a method in which information is gathered from persons who are able to provide research data on the basis of their background. The information may be concerned with their experiences, opinions, attitudes, reactions to services, etc".

Babbie (2004) suggests that interview is a useful method, which can be used to facilitate the process of answering questions orally. Therefore, Seale (1998) argue that the researchers prefer to use interview method in order to enable them to identify those things that are not be observed in the case of using other methods to collect data. This provides rationale for the use of interview for this study. As part of the triangulation method, thus, interviews were conducted to gather further specialised understanding of information from people who were involved in loans decision of their banks.

5.7.1. Types of the Interviews

Singleton and Straits (2005) and Rugg and Petre (2007) argue that there are three main types of interview methods: structured, unstructured and semi-structured interviews. In addition, May (1997) and Collis and Hussey (2003) mention that there is a fourth type of interview method which is in the form of group interview.

Firstly, the structured interview method refers to the interviews which are conducted by identifying a list of questions to be answered by all the interviewees. Therefore, it should be noted that all the interviewees should be answering the same questions prepared beforehand by the interviewer. Furthermore, Sekaran (1984) mentions that the structured interviews could be conducted either face-to-face or through telephone.

Secondly, the unstructured interview method refers to the interviews which are carried out by the interviewer without any pre-determined questions on the subject of study. Consequently, this kind of research depends on the level of the researcher's experience and knowledge. In addition, Sekaran (1984) argue that the unstructured interview could be conducted through the use of the telephone or face-to-face.

Thirdly, the semi-structured interview refers to both the first and second type of interview methods. Accordingly, semi-structured interviews are conducted by selecting some of the questions in advance while leaving space for any topics that might arise. Accordingly, it can be noted that the face-to-face and telephone methods can be used in order to conduct the semi-structured interviews.

Fourthly, the group interviews (focus group interview) refer to the interviews which are conducted by gathering a group of people to discuss issues to be investigated. However, Stewart and Shamdasani (1990) mention that the focus group interview usually includes eight to twelve individuals. Moreover, the interviewees have to be under the supervision of the interviewer. On the other hand, Punch (2005) states that the group interviews can be in several forms, such as structured, unstructured, and semi-structured.

Sekaran (1984: 251) points out that there are a number of advantages and disadvantages regarding the face-to-face and telephone interviews which are listed in the following table:

Table 5. 1: Advantages and Disadvantages of Face-to-face and Telephone Interviews

Mode of data collection	Advantages	Disadvantages
Face-to-Face Interviews	Can establish rapport and motivate respondents. Can clarify the questions, clear doubts, add new questions. Can read nonverbal cues. Can use visual aids to clarify points. Rich data can be obtained. Computer-assisted telephone interviews (CATI) can be used and responses entered in a portable computer.	Takes personal time. Costs more when a wide geographic region is covered. Respondents may be concerned about confidentiality of information given. Interviewers need to be trained. Can introduce interviewer biases. Respondents can terminate the interview at any time.
Telephone interviews	Less costly and speedier than personal interviews. Can reach a wide geographic area. Greater anonymity than personal interviews Can be done using Computer-assisted telephone interviews.	Nonverbal cues cannot be read. Interviews will have to be kept short. Obsolete telephone numbers could be contacted, and unlisted ones omitted from the sample.

In this study, semi-structured interviews with the use of face-to-face and telephone interview techniques have been used in the process of gathering primary data. Accordingly, there are two main reasons, which encouraged the researcher to choose the method of semi-structured interviews. Firstly, the advanced knowledge related to the types of loans that caused non-performing loans in the Libyan State-owned Commercial Banks, the reasons that may have led to the emergence of non-performing loans and the tools which can be used in order to address these loans. Therefore, it was envisaged that such advanced information can be gathered more efficiently by interviews. Secondly, it gives an opportunity for interviewees to express their views and suggestions. Practically, a list of questions called the interview guide had been prepared in order to instruct the interviewees. Moreover, it has given an opportunity to the interviewees to give any views and suggestions.

Accordingly, the main reason behind the use of face-to-face interviews is the attempt of the researcher to obtain as much information as possible by motivating the respondents to give clear and useful answers. On the other hand, the reasons behind using telephone interviews are due to the wide geographical distance from some banks. Moreover, some respondents prefer to use telephone interviews because of their belief that it gives them more freedom regarding to answer the questions. Additionally, the questions that had been prepared (the interview guide) in order to conduct the interviews were drawn from the secondary sources of data obtained from previous studies or reports which had attempted to identify the causes that led to the emergence of non-performing loans (NPLs) and the appropriate ways to remedy those types of loans.

In Libya, these types of studies need to obtain the necessary approval from the concerned authorities. Accordingly, it was necessary to make contact with some officials to facilitate the process of completing the interviews. After that, interviewees were contacted either by telephone or face to face.

In order to obtain more precise and objective answers, interviewees were given the choice of the appropriate way to conduct the interviews i.e. either by telephone or face-to-face. The majority of the interviewees preferred to use the telephone method to conduct the interviews.

A sample of interview question schedule can be found in the Appendix.

5.8. LANGUAGE

Since this is a case study related to Libya, the field research was conducted in Libya. This has language implications, as questionnaire and the interview schedules had to be translated into Arabic, as English language is not commonly used in day-to-day communication. This also implies that the interview material had to be translated back into English as well as conducting the interviews in Arabic language.

5.9. SAMPLING

Sampling is an important aspect of survey studies, and therefore sample must be efficiently established to gather the most relevant information.

In this study, for questionnaires, purposive sampling was used to collect data; and therefore the employees in the credit departments of the Libyan state-owned commercial banks were selected as the respondents of the questionnaires. Since the number of credit officers in the Libyan state-owned commercial banks is limited, the researcher attempted to reach as many staff members as possible in order to respond to the questions in the questionnaire. To achieve this, a number of persons either from the banks' employees or from outside of the banking system were helpful in facilitating the task of distributing and collecting the questionnaires. Accordingly, 135 questionnaires were distributed at the banks, located in Tripoli and Benghazi, while 89 questionnaires were returned, which implies that the return rate is 66%, and the distribution of the sample according to the banks is depicted in table 5.2.

Table 5. 2: Number of Questionnaires Collected from the Libyan State-owned Commercial Banks

Bank's Name	Sahara	Umma	Al-Gumhouria	National Commercial	Al-Wahda
Number of Questionnaires	7	26	30	11	15

As regards to interviews, the managers responsible for the administration of loans in the state-owned Libyan commercial banks were chosen as the sample of the interviews survey. Through the interview survey, this study aims to ascertain the interviewees' opinions, perceptions and suggestions with regards to non-performing loans in the Libyan state-owned commercial banks. Therefore, the interview questions focused on three basic sections presented in the form of the types of loans that caused non-performing loans, the reasons that led to non-performing loans and the appropriate tools, which can be used to deal with non-performing loans in the Libyan state-owned commercial banks.

Due to the specialised nature of the subject matter and also due to aiming at the decision-makers of credit departments, the interviews were conducted with the head of credit departments of the five banks. Four of the interviews took place in Tripoli and one was in Bengazi.

It should also be noted that all the interviews and questionnaires were conducted during the field research period from July-September 2007.

5.10. THE PILOT STUDY

To ensure the validity and reliability of data collected using the identified methods of data collection, the researcher should conduct a pilot test on a small sample of questionnaires and interviews. According to Collis and Hussey (2003: 233), the term 'validity' refers to "the capacity of research techniques to encapsulate the characteristics of the concepts being studied, and so properly to measure what the methods were intended to measure". Regarding 'reliability' Forcese and Richer (1973: 71), it is defined as "the same measure can be used again and again by the same or different researchers, and the same results will be obtained".

The purpose of a pilot test is to allow the researcher to obtain feedback related to a number of elements such as the clarity of the questions and instructions, length and difficulty of the questionnaires (Cohen *et al.* 2005). Therefore, Bell (1999) argues that the piloting test aims to detect and correct any confusion and difficulties that might face the interviewees and/or the respondents.

For this study a small number of questionnaires were distributed to a small number of Libyan PhD students in England who were lecturers at Libyan universities. Also, a small number of questionnaires were sent to a small number of employees within the Libyan state-owned commercial banking sector. As a result, the respondents' views and suggestions were taken into account in order to make the necessary adjustments to the questionnaires. Consequently, the final version of the questionnaire was completed and was ready to be distributed.

Furthermore, the researcher has conducted a pilot test on the interviews questions by asking two Libyan PhD students in England and two employees of the Libyan banks by using the telephone method. Therefore, the interviewees had provided useful feedback in terms of the difficulty and ambiguity which the interviewees may face in the main study.

5.11. RESEARCH METHOD: DATA ANALYSIS

Zikmund (1991) states that the data, which has been gathered by using the research methods, must be transferred into information by using the appropriate data analyzing tools. To do this, Sekaran (1984) articulates that the data, which has been gathered, should go through two steps, which are in terms of editing and coding before being entered into the suitable programme for data analysis. Firstly, the term 'editing' is defined by Zikmund (1991: 420) as "the process of checking and adjusting the data for omissions, legibility, and consistency". According to this definition the aim of editing is to modify the data for errors, clarity and consistency. Secondly, the term 'coding' refers to the process of numbering collected data ready for computer input. Sonquist and Dunkelberg (1977) mention that the coding process is a numerical symbol, which is used for interpreting, classifying, and recording data. The following sections, hence, discusses the data analysing methods for the collected data.

5.11.1 Reliability Test for Questionnaire

In order to measure reliability, the reliability test was conducted in the form of measuring Cronbach's Alpha in the Statistical Package for Social Sciences (SPSS) software package, which produced a significant value of 0. 92. This indicates rather high reliability, which indicates the internal integrity of the questionnaire.

5.11.2. Analyzing Quantitative Data – Questionnaires

Practically, the data collected using the questionnaires method were edited by comprehensive checks to make sure that there were no mistakes regarding the respondents' answers. In addition, after the process of editing data, the questionnaires were coded ready for computer input. Consequently, the coding process was in the form likert scale: number 1 for strongly disagree, number 2 for disagree, number 3 for neutral, number 4 for agree and number 5 for strongly agree.

Sekaran (2003) argue that the data collected by using questionnaires are considered as raw data, which have to be entered into the computer in order to obtain the final results of the study. Overall, the main task of the researcher is to transform data, which were collected for specific purpose. Accordingly, the difficulty of dealing with huge number of data requires appropriate methods for the analysis of such data. Therefore, statistical methods are the most important methods, which are used in order to analyze data. On the other hand, Bryman (2001) mention that the Statistical Package for Social Sciences (SPSS) is computer software, which is widely used for the analysis of quantitative data, usually in the form of questionnaire data. Moreover, the SPSS package helps to establish tables and charts in order to help the researcher to understand the achieved results. Basically, it is a family of statistical technique consists of a number of elements. In particular, SPSS is considered as one of those components, which are used by students and researchers in various disciplines (Bashir, 2003). The codification the data aims at "transformation of the raw data into a form that will make them easy to understand and interpret" (Zikmund, 1991). Accordingly, in this study the questionnaire data were codified and entered into spreadsheet in SPSS version 14.0. In analyzing the data in this study used the following statistical methods in the SPSS:

(i) Descriptive Analysis is considered as the most common statistical tool, which is used by the researcher to summarize, organize and describe data that have been gathered (Cohen and Holliday, 1996).

Practically, the aim of this analysis is to organize the respondents' answers into the language of numbers such, as frequencies and percentages. Moreover, to make that data useful, it must be transferred to figures (Siegel and Morgan, 1996). In addition, mean value is calculated to establish the general tendencies.

(ii) Factor Analysis: Coakes and Steed (2001: 155) defines factor analysis as "a data reduction technique used to reduce a large number of variables to a smaller set of underlying factors that summarise the essential information contained in the variables". Therefore, factor analysis can be viewed as "a data-reduction technique since it reduces a large number of overlapping measured variables to a much smaller set of factors" (Green and Salkind, 2003: 296). Consequently, factor analysis is the statistical analysis which is used to reduce the number of variables involved in the study. Accordingly, the factor analysis technique is used in order to reduce a large number of data collected in order to reach the reasons that led to the emergence of non-performing loans in the Libyan state-owned commercial banks.

In practical terms, in this research the main function of using factor analysis is to analyze the correlation between a set of data; therefore it aims to simplify the complex data sets (Howitt and Cramer, 2003). Briefly, factor analysis is used as a form of reducing large number of variables to a small number of factors in order to facilitate the process of summarizing data. Factor analysis, thus, is used to identify the items or variables which can be included or excluded from the analysis.

In order to conduct factor analysis on the data which have been collected, the Kaiser-Meyer-Olkin (KMO) and Bartlett's test need to be conducted. In other words, practically, distinguishing between the data which can be subjected to factor analysis can be established through Kaiser-Meyer-Olkin and Bartlett tests. Accordingly, whenever a result of the Kaiser-Meyer-Olkin (KMO) and Bartlett's tests is high, the possibility of conducting the factor analysis is also high. On the other hand, it has been determined that the Kaiser-Meyer-Olkin (KMO) and Bartlett's test values should be equal or more than 60% (Coakes and Steed, 2001). As the analysis in Chapter 7 indicates, the results of Kaiser-Meyer-Olkin (KMO) and Bartlett's test are 86% for banks-related reasons, 70% for borrower-related reasons and 80% for local conditions-related reasons.

Conducting factor analysis requires two stages: factor extraction and factor rotation. Accordingly, the first factor (factor extraction) aims to make the initial decision on the number of underlying factors. The second factor (factor rotation) aims to make the factors more clear, and make the final decision on the underlying factors (Green and Salkind, 2003). Howitt and Cramer (2003) mention that the factors, which have an eigenvalue equal or more than 1.00 are acceptable, but the other factors that are less than 1.00 should be ignored by the researcher. Accordingly, Coakes and Steed (2001) have mentioned that the correlation required in the factor analysis is 0.3 or more.

(iii) Cross-tabulation: According to Barghoon (1996), the cross-tabulation method is considered as a method of data analysis collected through questionnaire. As to the process of cross-tabulation, the questionnaire consists of a number of variables divided into independent and dependent variables. Hence, the purpose of cross-tabulation analysis is to identify the relationship between two variables (dependent and independent). The independent variables are those variables which influence the dependent variables (Zikmund, 1991; Norusis, 1991). Therefore, cross-tabulation allows the researcher to explore the correlation between a set of variables mentioned in the questionnaire.

In this study, cross tabulation analysis was conducted between various variables and experience as a control variable. Practically, the length of experience might have a significant impact on the views of the staff members of the banks who had participated in the questionnaires. Thus, this analysis seeks to determine the statistical correlation between the respondents' experiences with other variables, which are related to: (1) the types of loans that caused non-performing loans in the Libyan state-owned commercial banks, (2) the reasons that led to the emergence non-performing loans in the Libyan state-owned commercial banks, and (3) the appropriate methods to deal with non-performing loans in the Libyan state-owned commercial banks.

5.11.3. Analyzing Qualitative Data - Interviews

In terms of analysing the data which were collected by using the technique of semi-structured interviews, the interviewees' responses were edited by adding some remarks. Secondly, the responses were translated from Arabic to English, as the interviews were conducted in Arabic.

In analysing the data, according to the research themes, the interviews questions were coded through thematic coding. The interview text, hence, was manually analysed in according to the established themes to reach a general view which can represents the views of participants to that particular question.

5.12. LIMITATION AND DIFFICULTIES

According to Marshall and Rossman (1999), from a practical point of view there is no research study without its limitations or difficulties affecting the process of completing the research. Therefore, the mean limitations and difficulties which negatively affect to conduct this study are:

(i) The difficulty of obtaining necessary approval from the competent authorities in order to conduct such studies in Libya;
(ii) Most of the potential respondents attempted to avoid participating in the process of conducting interviews and/or responding to questionnaires. Therefore, the researcher established personal relationships with others in order to facilitate the task of distributing and collecting questionnaires and/or conducting interviews.

(iii) High costs of conducting such studies due to the increase of transportation and communications costs.

(iv) The difficulty of obtaining the required data due to its confidentiality.

(v) The period of time related to the process of completing this study is limited.

5.13. CONCLUSION

The aim of this study is to analyze non-performing loans (NPLs) in the Libyan state-owned commercial banks. Therefore, this study aims to determine the types of loans that caused non-performing loans in the Libyan state-owned commercial banks, the reasons that led to non-performing loans, and the appropriate ways, which can be used to treat NPLs. Thus, this chapter presents the methods that have been chosen to conduct the empirical research related to this study. Accordingly, these methods are in the form of qualitative and quantitative research. Qualitative methods of data collection followed the semi-structured interview by using face-to-face interviews and telephone interviews. On the other hand, the self-administrated questionnaires and mail questionnaires were used in order to collect data by using closed-ended questions.

Ultimately, the empirical results are presented in the following chapters:

1- Chapter Six presents the analysis of the questionnaires in order to identify non-performing loans-related issues.

2- Chapter Seven presents the analysis of the questionnaire to identify the factors that led to non-performing loans in the Libyan state-owned commercial banks.

3- Chapter Eight presents the analysis aiming to identify the appropriate ways to treat the non-performing loans in the Libyan state-owned commercial banking sector.

4- Chapter Nine presents the analysis of the interviews with the aim of providing further meaning.

Chapter 6

LOCATING THE SOURCES OF NON-PERFORMING LOANS: INITIAL EMPIRICAL FINDINGS

6.1. INTRODUCTION

Previous chapters provide discussion in understanding the reasons and nature of non-performing loans as well as introducing the Libyan commercial banking and the issue of non-performing loans in the Libyan banking system. The research methodology chapter provides the details of collecting primary data in an attempt to respond to the research questions of this study. Being the first empirical chapter based on the primary data, this chapter presents the empirical findings from the respondents' demographic backgrounds, but also discusses the results on the types of loans that caused the emergence of non-performing loans in Libyan state-owned commercial banks. In conducting the empirical analysis, descriptive analysis is utilized to determine the frequency and the percentages in the respondents' demographic backgrounds. In addition, cross-tabulation analysis is conducted to identify the relationship between the respondents' experiences with the other variables, such as types of loans leading to non-performing loans.

6.2. RESPONDENTS' DEMOGRAPHIC BACKGROUNDS

The results presented in this section inform of the frequencies and the percentages of the respondents' demographic backgrounds. In this study, the following demographic backgrounds are enquired: age, education qualification, experience in the current position and gender.

Table 6. 1: Distribution of Age Groups

			Frequency	Percent
Valid	1	Less than 20	0.0	0.0
	2	21-30	18	20.2
	3	31-40	34	38.2
	4	41-50	27	30.3
	5	51-60	10	11.2
	6	Over 60	0.0	0.0
		Total	89	100.0

It can be seen from table 6.1 that the respondents' ages were concentrated between the age group of 31-40 years followed by the next age group of 41-50. The largest age group, namely, 31-40 is represented by 38.2% of the respondents. Also, it should be noted that there are no respondents aged less than 20 years or over 60 years who participated as respondents in this study. Taking into account that 20.2% of the respondents are in the 21-30 age group, it can be concluded that majority of the respondents are younger than 40 years old.

Table 6. 2: Education Qualification

			Frequency	Percent
Valid	1	BA or BSc	59	66.3
	2	Master	9	10.1
	3	PhD.	0.0	0.0
	4	Other	21	23.6
		Total	89	100.0

Regarding the education level of the respondents, as demonstrated by table 6.2 the highest level of the respondents' education qualifications was undergraduate degree in the form of BA or BSc with 59 participants corresponding to 66.3% of the sample. 10.1% of the participants have a master degree. However, it can be noted that there are no participants with a PhD qualification.

Table 6. 3: Experience in the Current Position

			Frequency	Percent
Valid	1	Less than 5	16	18.0
	2	6-10	19	21.3
	3	11-15	9	10.1
	4	16-20	17	19.1
	5	21-25	12	13.5
	6	Over 26	16	18.0
		Total	89	100.0

Table 6.3 depicts respondents' experiences in the current position in terms of number of years. Consequently, it shows that the largest experience group is the 6-10 years group with 21.3% and 16-20 years of experience group is the second largest group, with 19.1% of representation. This is followed by less than 5 and over 26 years groups with the same frequency distribution, *i.e.* 18% respectively.

Table 6. 4: Gender

			Frequency	Percent
Valid	1	Male	80	89.9
	2	Female	9	10.1
		Total	89	100.0

Finally, table 6.4 shows the gender distribution of respondents, which clearly indicates that the majority of the respondents namely 89.9% the total sample are male, while women is represented by only 10.1%. This is a reflection of the Libyan society, as public sphere is dominated by men.

6.3. SOURCES OF NON-PERFORMING LOANS IN LIBYAN STATE-OWNED COMMERCIAL BANKS

Since the main aim of this research is to locate the reasons of non-performing loans in the Libyan state-owned commercial banking system, this section together with the following chapters aims to locate the nature and reason of the problem.

6.3.1. Description Analysis

In practice, the main task of the commercial banks takes the form of granting loans and credit facilities to a wide range of entities such as individuals and institutions. Thus, there are several types of loans granted by the Libyan state-owned commercial banks. Therefore, the initial analysis in this section attempts to determine the types of loans which led to the emergence of non-performing loans in the Libyan state-owned commercial banks.

Table 6. 5: Loans and Credit Facilities Granted to Individuals

			Frequency	Percent
Valid	1	Strongly Disagree	2	2.2
	2	Disagree	4	4.5
	3	Neutral	0.0	0.0
	4	Agree	54	60.7
	5	Strongly Agree	29	32.6
		Total	89	100.0
Mean		4.1685		

It can be seen from table 6.5 that 60.7% of respondents 'agree' and 32.6% 'strongly agree' with combined total of 93.3% that loans and credit facilities granted to individuals is one of the types of loans that led to the appearance of non-performing loans in the Libyan state-owned commercial banks. This result is evidenced by the mean value of 4.16 indicating the agree group.

Table 6. 6: Loans Granted to Public Institutions

			Frequency	Percent
Valid	1	Strongly Disagree	3	3.4
	2	Disagree	11	12.4
	3	Neutral	12	13.5
	4	Agree	44	49.4
	5	Strongly Agree	19	21.3
		Total	89	100.0
Mean	3.7303			

Table 6.6 shows that 49.4% and 21.3% with combined total of 93.3% of the respondents respectively 'agree' and 'strongly agree' that the loans granted to public institutions are considered as an important reason leading to the emergence of non-performing loans in the Libyan state-owned commercial banks. Accordingly, in view of this percentage it can be noted that loans granted to the public institutions are ranked as the second source of loans that caused the emergence of non-performing loans in the Libyan state-owned commercial banks. Also, it can be observed that the mean value in this category is 3.73, which is close to 'agree' group.

Table 6. 7: Loans Granted to Foreign Companies

			Frequency	Percent
Valid	1	Strongly Disagree	11	12.4
	2	Disagree	49	55.1
	3	Neutral	19	21.3
	4	Agree	9	10.1
	5	Strongly Agree	1	1.1
		Total	89	100.0
Mean	2.3258			

In searching further sources of non-performing loans, loans granted to foreign companies were also considered and examined and the results are depicted in table 6.7. As can be observed from table 6.7, 55.1% of the respondents disagree that loans granted to foreign companies is one of the loan types which led to the emergence of non-performing loans in the Libyan state-owned commercial banks. Also, the table shows that 12.4% of the participants 'strongly disagree' that this type of loans contributed to the problem. Thus, a total of 67.5% of the respondents 'disagree' with the contention that such loans are one of the reasons of non-performing loans. This result is evidenced with the mean score of 2.3 which corresponds to the 'disagree' range.

Table 6. 8: Loans Granted to the Nationalised Sectors

			Frequency	Percent
Valid	1	Strongly Disagree	4	4.5
	2	Disagree	13	14.6
	3	Neutral	17	19.1
	4	Agree	38	42.7
	5	Strongly Agree	17	19.1
		Total	89	100.0
Mean	3.5730			

Taking into account the large public sector in Libya including the commercial banks, it is also important to see if the loans granted to the nationalised sectors are considered by the participants as one of the reasons that led to non-performing loans. Table 6.8 shows that 42.7% of the respondents 'agree' that loans granted to the Libyan national sectors contributed to the problem of non-performing loans in the Libyan state-owned commercial banks. Those who 'strongly agreed' on the role of such loans in creating non-performing loans are 19.1%. It can, therefore, be argued that the majority of the respondents perceive that loans granted to the nationalised sectors is an important element of the problem, which is understandable taking into account the heavy presence of the public sector in the country. The estimated mean value is approximately 3.6, which corresponds to the 'agree' group. This table highlights that these types of loans are ranked third in terms of the loans that led to the emergence of non-performing loans in the Libyan state-owned commercial banks.

As the results presented so far, it can be said that the types of loans which have created the non-performing loans are mainly the loans granted to individuals and the local public sector institutions. Thus, this excludes those types of loans granted to foreign firms. Ultimately, table 6.9 shows the mean ranking of the loans that caused non-performing loans in the Libyan state-owned commercial banks, which is based on the results presented so far.

Table 6. 9: Mean ranking of the Loans that Caused Non-Performing Loans

	Type of Loan	Mean ranking
1	Loans and credit facilities granted to individuals	4.1685
2	Loans granted to the public institutions	3.7303
3	Loans granted to the nationalised sectors	3.5730
4	Loans granted to the foreign companies	2.3258

Table 6.9 has been designed to rank the types of loans that led to non-performing loans in the Libyan state-owned commercial banks. Accordingly, the mean ranking of the loans that caused non-performing loans are listed from the highest mean to the lowest. As a result, it can be seen that loans and credit facilities granted to individuals is considered as the first; loans granted to the public institutions is the second; loans granted to the nationalised sectors is the third, and loans granted to the foreign companies is the fourth type of loans that led to non-performing loans in the Libyan state-owned commercial banks.

6.3.2. Demographic Characteristics and Opinions on the Sources of Non-Performing Loans: Cross-Tabulation Analysis

In order to extend the analysis, cross-tabulation analysis was considered as this enables the correlation of various demographic factors with the perceptions stated regarding the questions on the sources of non-performing loans. Therefore, initial experience of the individuals was cross-tabulated with their perception regarding the loans and credit facilities granted to individuals as a source of non-performing loans in the Libyan state-owned commercial banking system with the objective of finding if experience has a particular impact on the expressed opinions. In other words, such a cross-tabulation provides an opportunity to examine the impact of the frequency distribution of experience on stated perceptions. The results are presented in the following tables.

Table 6. 10: Cross-tabulation of Loans and Credit Facilities Granted to Individuals with the Respondent's Experience

			Loans and credit facilities granted to individuals (LCFGI)				
			Strongly disagree	Disagree	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	1	0	11	4	16
		% within Experience	6.3%	.0%	68.8%	25.0%	100%
		% within LCFGI	50.0%	.0%	20.4%	13.8%	18.0%
	6-10	Count	1	1	11	6	19
		% within Experience	5.3%	5.3%	57.9%	31.6%	100%
		% within LCFGI	50.0%	25.0%	20.4%	20.7%	21.3%
	11-15	Count	0	1	6	2	9
		% within Experience	.0%	11.1%	66.7%	22.2%	100%
		% within LCFGI	.0%	25.0%	11.1%	6.9%	10.1%
	16-20	Count	0	0	13	4	17
		% within Experience	.0%	.0%	76.5%	23.5%	100%
		% within LCFGI	.0%	.0%	24.1%	13.8%	19.1%
	21-25	Count	0	1	9	2	12
		% within Experience	.0%	8.3%	75.0%	16.7%	100%
		% within LCFGI	.0%	25.0%	16.7%	6.9%	13.5%
	Over 26	Count	0	1	4	11	16
		% within Experience	.0%	6.3%	25.0%	68.8%	100%
		% within LCFGI	.0%	25.0%	7.4%	37.9%	18.0%
Total		Count	2	4	54	29	89
		% within Experience	2.2%	4.5%	60.7%	32.6%	100%
		% within LCFGI	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.090(a)	15	.210
Likelihood Ratio	20.468	15	.155
Linear-by-Linear Association	2.461	1	.117
N of Valid Cases	89		

a. 14 cells (58.3%) have expected count less than 5. The minimum expected count is .20.

Table 6.10 shows the cross-tabulation between the experiences of the staff members as participants and whether the loans and credit facilities granted by the Libyan state-owned commercial banks to individuals have caused the emergence of non-performing loans. As can be seen, the chi-square score is 0.210, which is higher than the significance level (0.05). Therefore, it can be concluded that there is no statistically significant relationship between the two variables (staff experience and loans and credit facilities granted to individuals). As a result, we can not reject the null hypothesis that the two variables are independent. On the other hand, it can be observed that the majority of the respondents (60.7% +32.6% = 93.3% in total) 'agree' and 'strongly agree' that this type of loans led to non-performing loans in the

Libyan state-owned commercial banks. Eventually, it can be argued that regardless of experience, most of the respondents have similar views regarding loans and credit facilities granted to individuals as being a source of the problem.

When looking at the vertical distribution or the categories of opinion, it can be seen that the distribution of the respondents regarding the 'strongly disagree' criteria is equally distributed among only two statements, which are 50% for each of the groups less than 5 and 6-10 years. In addition, respondents' distribution regarding the 'disagree' criteria is distributed as 25% for each of the groups 11-15, 16-20, 21-25 and over 26. In contrast, it can be noted that the respondents' distribution regarding the 'agree' criteria is mostly distributed among three groups i.e. 24.1 for group 16-20 years and 20.4% for groups less than 5 and 6-10 years, respectively. Furthermore, regarding the 'strongly agree' criteria, the highest distribution is nearly 38% for over 26 years followed by the group 6-10 years by 20.7%. This indicates as to why experience does not necessarily explain the differences in the opinion expressed.

Table 6. 11: Cross-tabulation of Loans Granted to Public Institutions with the Respondent's Experience

			Loans granted to the public institutions (LGPI)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	1	1	5	7	2	16
		% within Experience	6.3%	6.3%	31.3%	43.8%	12.5%	100%
		% within LGPI	33.3%	9.1%	41.7%	15.9%	10.5%	18.0%
	06-10	Count	0	3	1	11	4	19
		% within Experience	.0%	15.8%	5.3%	57.9%	21.1%	100%
		% within LGPI	.0%	27.3%	8.3%	25.0%	21.1%	21.3%
	11-15	Count	0	1	2	3	3	9
		% within Experience	.0%	11.1%	22.2%	33.3%	33.3%	100%
		% within LGPI	.0%	9.1%	16.7%	6.8%	15.8%	10.1%
	16-20	Count	1	2	0	9	5	17
		% within Experience	5.9%	11.8%	.0%	52.9%	29.4%	100%
		% within LGPI	33.3%	18.2%	.0%	20.5%	26.3%	19.1%
	21-25	Count	0	0	3	7	2	12
		% within Experience	.0%	.0%	25.0%	58.3%	16.7%	100%
		% within LGPI	.0%	.0%	25.0%	15.9%	10.5%	13.5%
	Over 26	Count	1	4	1	7	3	16
		% within Experience	6.3%	25.0%	6.3%	43.8%	18.8%	100%
		% within LGPI	33.3%	36.4%	8.3%	15.9%	15.8%	18.0%
Total		Count	3	11	12	44	19	89
		% within Experience	3.4%	12.4%	13.5%	49.4%	21.3%	100%
		% within LGPI	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.062(a)	20	.518
Likelihood Ratio	22.696	20	.304
Linear-by-Linear Association	.010	1	.919
N of Valid Cases	89		

a. 25 cells (83.3%) have expected count less than 5. The minimum expected count is .30.

Table 6.11 shows the cross-tabulation between the staff experience and whether they thought the loans granted to the Libyan public institutions had caused non-performing loans. The Chi-square score is 0.518, which is higher than the customary level (0.05), and accordingly, it can be said that there is no statistically significant correlation between the two variables, namely experience and perception of the participants on the question. As a result, the null hypothesis cannot be rejected that the two variables are independent. Regardless of the statistical significance, it can be seen that a total of nearly 71% of the staff members (49.4% + 21.3%), regardless of their experience, 'agree' and 'strongly agree' that the loans granted by the Libyan state-owned commercial banks to the public institutions have led to non-performing loans. On the other hand, it can be noted that the majority of the respondents in each experience group 'agree' and 'strongly agree' regarding the failure of some borrowers repaying such type of loans.

In addition, it can be noted that the respondents' distribution regarding the 'strongly disagree' criteria is equal among the groups less than 5, 16-20 and over 26 years by the percentage of 33.3% for such groups. Regarding the 'disagree' criteria, most of the respondents were concentrated in the groups over 26 and 6-10 years as 36.4% and 27.3%, respectively. On the other hand, it can be seen that the highest distribution of the respondents regarding the 'agree' criteria are in the groups 6-10 and 16-20 years as 25% and 20.5%, respectively. Moreover, the respondents' distribution regarding the 'strongly agree' criteria are concentrated in the groups 16-20 and 6-10 by percentage of 26.3% and 21.1% respectively. This explains as to why there is no particular pattern governing this particular correlation, and hence the statistical insignificant result.

Table 6. 12: Cross-tabulation of Loans Granted to Foreign Companies with the Respondent's Experience

			Loans granted to foreign companies (LGFC)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	2	11	3	0	0	16
		% within Experience	12.5%	68.8%	18.8%	.0%	.0%	100%
		% within LGFC	18.2%	22.4%	15.8%	.0%	.0%	18.0%
	6-10	Count	3	8	5	3	0	19
		% within Experience	15.8%	42.1%	26.3%	15.8%	.0%	100%
		% within LGFC	27.3%	16.3%	26.3%	33.3%	.0%	21.3%
	11-15	Count	0	5	2	1	1	9
		% within Experience	.0%	55.6%	22.2%	11.1%	11.1%	100%
		% within LGFC	.0%	10.2%	10.5%	11.1%	100.0%	10.1%
	16-20	Count	4	9	4	0	0	17
		% within Experience	23.5%	52.9%	23.5%	.0%	.0%	100%
		% within LGFC	36.4%	18.4%	21.1%	.0%	.0%	19.1%
	21-25	Count	0	6	2	4	0	12
		% within Experience	.0%	50.0%	16.7%	33.3%	.0%	100%
		% within LGFC	.0%	12.2%	10.5%	44.4%	.0%	13.5%
	Over 26	Count	2	10	3	1	0	16
		% within Experience	12.5%	62.5%	18.8%	6.3%	.0%	100%
		% within LGFC	18.2%	20.4%	15.8%	11.1%	.0%	18.0%
Total		Count	11	49	19	9	1	89
		% within Experience	12.4%	55.1%	21.3%	10.1%	1.1%	100%
		% within LGFC	100%	100 %	100%	100%	100%	100%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	25.808(a)	20	.172
Likelihood Ratio	24.580	20	.218
Linear-by-Linear Association	.213	1	.644
N of Valid Cases	89		

a. 25 cells (83.3%) have expected count less than 5. The minimum expected count is .10.

Table 6.12 depicts the cross-tabulation of the loans granted to the foreign companies by the Libyan state-owned commercial banks with the respondents' experience. As the results indicate, the Chi-square score (0.172) is higher than the significant level of 0.05 implying that there is no statistically significant relationship between the seniority or the experience of the staff members and their perceptions on the loans granted to the foreign companies leading to the non-performing loans in the Libyan state-owned commercial banks. On the other hand, it could be concluded that regardless of the experience level 67.5% of the respondents 'disagree' and 'strongly disagree' that the loans granted to the foreign companies are considered as one of the reasons which led to the emergence of non-performing loans. Also, it can be noted that most of the respondents in each experience group have similar views regarding 'strongly disagree' and 'disagree' that the Libyan state-owned commercial banks had been exposed to non-performing loans due to the reason mentioned in the previous table. As a result, the answers contained in the above table do not indicate the existence of the relationship between these variables.

In addition, the highest respondents' distribution regarding the 'strongly disagree' criteria were 36.4% related to the group 16-20 and 27.3% related to group 6-10 years. Furthermore, regarding the 'disagree' criteria, most of the respondents distributed in group less than 5 years by 22.4% and over 26 years by 20.4%. On the other hand, the majority of the respondents who 'agree' are concentrated in the groups 21-25 and 6-10 years by the percentage of 44.4% and 33.3% respectively. Moreover, regarding the 'strongly agree' criteria, 100% of the respondents are concentrated among the group 11-15. As in the previous cases, there is no particular pattern, which therefore justifies the statistically insignificant result.

Table 6. 13: Cross-tabulation of Loans Granted to National Sectors with the Respondents' Experience

			Loans granted to the nationalised sectors (LGNS)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	2	4	2	3	5	16
		%within Experience	12.5%	25.0%	12.5%	18.8%	31.3%	100%
		% within LGNS	50.0%	30.8%	11.8%	7.9%	29.4%	18.0%
	6-10	Count	1	4	3	8	3	19
		%within Experience	5.3%	21.1%	15.8%	42.1%	15.8%	100%
		% within LGNS	25.0%	30.8%	17.6%	21.1%	17.6%	21.3%
	11-15	Count	0	0	2	6	1	9
		%within Experience	.0%	.0%	22.2%	66.7%	11.1%	100%
		% within LGNS	.0%	.0%	11.8%	15.8%	5.9%	10.1%
	16-20	Count	0	1	5	7	4	17
		%within Experience	.0%	5.9%	29.4%	41.2%	23.5%	100%
		% within LGNS	.0%	7.7%	29.4%	18.4%	23.5%	19.1%
	21-25	Count	1	2	4	5	0	12
		%within Experience	8.3%	16.7%	33.3%	41.7%	.0%	100%
		% within LGNS	25.0%	15.4%	23.5%	13.2%	.0%	13.5%
	Over 26	Count	0	2	1	9	4	16
		%within Experience	.0%	12.5%	6.3%	56.3%	25.0%	100%
		% within LGNS	.0%	15.4%	5.9%	23.7%	23.5%	18.0%
Total		Count	4	13	17	38	17	89
		%within Experience	4.5%	14.6%	19.1%	42.7%	19.1%	100%
		% within LGNS	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.184(a)	20	.386
Likelihood Ratio	26.170	20	.160
Linear-by-Linear Association	1.359	1	.244
N of Valid Cases	89		

a. 25 cells (83.3%) have expected count less than 5. The minimum expected count is .40.

Table 6.13 shows the cross-tabulation between the respondent's experience and their perceptions on the non-performing loans emerging due to the loans which had been granted to the nationalised sectors. The Chi-square test score is 0.386 which is higher than the significance level 0.05, which implies that there is no statistically significant relationship between the two variables, and we can not reject the null hypothesis that the two variables are independent. This is supported by the results shown in the previous table noted that many of the respondents, regardless of their experience, in each experience group 'agree' and 'strongly agree' that the loans which were granted by the Libyan state-owned commercial banks to the nationalised sectors have led to non-performing loans. On the other hand, it can be noted that almost of 62% of the respondents 'agree' and 'strongly agree' that non-performing loans emerged due to the reason mentioned in the above table.

Regarding the criteria of 'strongly disagree', it can be seen that 50% of the respondents concentrated in the group less than 5 years and 25% concentrated in the groups 6-10 and 21-25 years respectively. In addition, respondents who 'disagree' are concentrated in the groups less than 5 and 6-10 years by the percentage of 30.8% for each group. On the other hand, 23.7% and 21.1% of the respondents distributed in the groups over 26 and 6-10 respectively related to the 'agree' criteria. Moreover, the respondents' distribution related to the 'strongly agree' criteria are concentrated in the groups less than 5 years by 29.4% and 16-20 and over 26 years by 23.5%, respectively. The vertical distribution of results does not confirm with any particular pattern and therefore seniority of the staff does not have a particular impact on the opinions expressed.

6.4. CONCLUSION

This chapter presents a descriptive analysis on the perception of the respondents in relation to their opinion on the sources of non-performing loans in Libyan commercial banking. It is clear that the majority of the respondents were aged between 31-40 years. In terms of the level of educational qualifications, it can be observed that the frequency and percentage in the above tables which related to the descriptive analysis shows that most respondents have got university degrees. Added to that, the group with 6-10 years of experience was the largest group in terms of the respondents' experience in the current position. On the other hand, it can be said that this study is dominated by male respondents, which is due to the fact that men dominate the public sphere including the labour market in Libya. This is indicative of the social considerations prevailing in Libya.

The analysis also focuses on identifying the loans, which have led to the emergence of non-performing loans in the Libyan state-owned commercial banks. According to the results related to the frequency distribution and mean scores, the loans and credit facilities granted to the individuals are considered as the highest types of loans, which caused non-performing loans. On the other hand, the second type of loans are those loans which had been extended to public institutions, which is the result of state policy related to loans directed to certain sectors. In contrast, respondents ruled out loans granted to the foreign companies as one of the reasons that led to non-performing loans. This rejection was due to the monetary policy pursued by the Central Bank of Libya (CBL) in respect of granting loans to foreign companies on the one hand, or the scarcity of such companies in the Libyan market on the other hand.

It should also be stated that the results related to cross-tabulation analysis shows that there is no statistically significant relationship between the respondents' experiences with the variables relevant to the types of loans, which may cause non-performing loans in the Libyan state-owned commercial banks.

Chapter 7

FACTORS LEADING TO NON-PERFORMING LOANS IN THE LIBYAN STATE-OWNED COMMERCIAL BANKING SECTOR: PERCEPTION ANALYSIS

7.1. INTRODUCTION

Chapter 2 presents the factors which lead to the emergence of the non-performing loans. Accordingly, these are: bank-related reasons (lender), collateral-related reasons, and borrower-related reasons (client) and general conditions-related reasons (internal and external).

This chapter seeks to identify the reasons which led to the emergence of non-performing loans in the Libyan state-owned commercial banks. Therefore, it presents data analysis of the primary data collected through questionnaires. The empirical results presented in this chapter are the products of descriptive analysis, factor analysis and cross-tabulation analysis. Accordingly, the following sections attempt to summarize the factors, which led to the emergence of non-performing loans in the Libyan state-owned commercial banking sector.

The analysis in this chapter mainly utilized three methods of data analysis:

(i) Descriptive analysis aiming to locate the distribution and breakdown of answers given to each variable by the respondents, which utilizes mainly frequency distribution;

(ii) To support the results established in descriptive analysis and substantiate the descriptive results with more systematic results, factor analysis was conducted for the groups to which it was possible, as Kaiser-Meyer-Olkin (KMO) and Bartlett's Test determines whether factor analysis should be conducted or not;

(iii) Cross-tabulation analysis takes the analysis a step further by providing correlation analysis with the variables of each group with a control group. In this chapter control group is chosen to be 'experience' or the 'seniority' of the respondents in the banks they work. The rationale comes from the fact that differences in professional experience in terms of seniority might have some impact on the answers given by each individual participant, as individuals belonging various age groups might have different professional attitudes. According to the results, if there is a convergence between the respondents' answers, it then can be concluded that experience does not have any impact on the variance and can be observed in the answers given. On the contrary, if there is not any particular pattern between the experience groups but rather each experience group has their own internal pattern, then it can be concluded that experience is significant, and hence Chi-square test will be significant. In addition, cross-tabulation analysis is conducted through the rows by locating the frequencies of the answers given in each experience group. Furthermore, vertical analysis of the cross-tabulation is also conducted to locate how answers in the form of lickert scale is distributed to experience groups, such as how the 'agree' group is distributed to various categories of experience. This provides an understanding of the distribution of the same answer scale between the experience groups in locating the weight given.

The following sections, hence, provides all these analyses for each factor groups identified above.

7.2. ASSESSING THE BANK-RELATED REASONS

According to chapter 2, one of the reasons leading to non-performing loans is bank-related reasons. Therefore, this section attempts to show the respondents' views regarding the bank-related reasons, which caused the problem of non-performing loans in the Libyan state-owned commercial banks; and it commences with descriptive analysis.

7.2.1. Descriptive Analysis

Initially, this section investigates the practices of banks to locate if such practices can be accountable for the emergence of the non-performing loans. The first issue explored is the lack of clear and written loan policy by the banks, and the results of the respondents are presented in table 7.1.

Table 7. 1: The Lack of Clear and Written Loan Policy

			Frequency	Percent
Valid	1	Strongly Disagree	0.0	0.0
	2	Disagree	8	9.0
	3	Neutral	7	7.9
	4	Agree	53	59.6
	5	Strongly Agree	21	23.6
		Total	89	100.0
Mean	3.9775			

From table 7.1 it can be seen that 59.6% of the respondents were in agreement that there was a lack in the existence of clear and written loan policy as part of bank practice. Also, 23.6% of the respondents were in the 'strongly agree' bracket regarding non-performing loans in the Libyan state-owned commercial banks. In fact, the Libyan state-owned commercial banks sector supervised by the Central Bank of Libya (CBL). Thus, the Central Bank of Libya intervenes in terms of creating the majority of the monetary policies as well as interfering in the process of determining the monetary policies of the commercial banks, especially the loans policy. As a result, the total of 83.2% (59.6% for agree and 23.6% for strongly agree) of the respondents 'agree' that there is a lack of clear and written loan policy in the Libyan state-owned commercial banking sector loan policy. Accordingly, it can be concluded that this is one of the reasons leading to non-performing loans, the strength of which is demonstrated through the mean value of 4, which matches the 'agree' group.

Theoretically, within the organisational structure of the Libyan state-owned commercial banks there are separate departments, which specialise in the task of granting loans. In addition, there are other departments, which specialise in the function of follow-up of those loans, which has been already granted. The following section gauges the opinions of the participants on the overlap between the functions of these departments, and the results are depicted in table 7.2.

Table 7. 2: The Overlap between the Functions of the Lending Department and the Follow-up Department

			Frequency	Percent
Valid	1	Strongly Disagree	8	9.0
	2	Disagree	17	19.1
	3	Neutral	10	11.2
	4	Agree	45	50.6
	5	Strongly Agree	9	10.1
		Total	89	100.0
Mean	3.3371			

Table 7.2 shows that respectively 50.6% and 10.1% of the respondents 'agree' and 'strongly agree' that there is an overlap between the functions of the lending department and the follow-up department regarding the loans granted. This indicates that 60.7% of the total respondents were 'agreed' that the confusion between these tasks had led to the appearance of non-performing loans in the Libyan state-owned commercial banking sector. On the other hand, it can be observed that total of 28.1% of the respondents 'strongly disagree; and disagree to consider that the overlap between those tasks had caused non-performing loans in the Libyan state-owned commercial banks. Consequently, this result is evidenced by the mean value of 3.3, which corresponds to an interval just above the 'neutral' group.

As Chapter 3 shows that the financial analysis is considered as one of the traditional ways, which should be used by bankers in terms of detecting non-performing loans, this section attempts to investigate through the perceptions of the participants on the weakness in the use of financial analysis methods for the early detection of non-performing loans.

Table 7. 3: The Weakness in the Use of Financial Analysis Methods for the Early Detection of Non-Performing Loans

			Frequency	Percent
Valid	1	Strongly Disagree	3	3.4
	2	Disagree	7	7.9
	3	Neutral	6	6.7
	4	Agree	45	50.6
	5	Strongly Agree	28	31.5
		Total	89	100.0
Mean	3.9888			

Table 7.3 presents that 50.6% and 31.5% of the respondents who respectively 'agree' and 'strongly agree' that the weakness in the use of financial analysis methods had led

to the lack for the early detection of non-performing loans. Accordingly, it can be said that 82.1% of the respondents 'agree' that the negligence of the use of this method by bankers exposed the Libyan state-owned commercial banks to the problem of non-performing loans. Thereby, it can be noted that the mean value of 4 depicts the 'agree' group.

Table 7. 4: Lack of Adequate Attention Given to the Investigation of the Loan Applications Submitted by Clients

			Frequency	Percent
Valid	1	Strongly Disagree	2	2.2
	2	Disagree	11	12.4
	3	Neutral	7	7.9
	4	Agree	41	46.1
	5	Strongly Agree	28	31.5
		Total	89	100.0
Mean	3.9213			

Chapter 2 states that the loan application is considered as one of the lender's information sources. Also, bankers are dependent on the loan application to take the lending decision. Therefore, respondents were asked their opinion whether adequate attention is given to the investigation of the loan application submitted by clients. As can be seen from table 7.4, 46.1% of the respondents 'agree' that there is a lack in adequate attention given by the bankers to investigate loan applications. Also, it can be noted that 31.5% of the respondents 'strongly agree' that lack of attention to loan application was an issue. Therefore, it can be said that 77.6% of the respondents 'agreed' that this lack of attention had led to non-performing loans in the Libyan state-owned commercial banks. Furthermore, this result is evidenced by the mean value of 4 which reflects the 'agree' group.

One of the reasons of non-performing loans is considered to be granting a large proportion of loans and credit facilities to a small number of borrowers, Table 7.5 shows the opinions of the participants on this whether they consider this as an important reason of non-performing loans.

Table 7. 5: Granting a Large Proportion of Loans and Credit Facilities to a Small Number of Borrowers

			Frequency	Percent
Valid	1	Strongly Disagree	9	10.1
	2	Disagree	24	27.0
	3	Neutral	15	16.9
	4	Agree	34	38.2
	5	Strongly Agree	7	7.9
		Total	89	100.0
Mean	3.0674			

Table 7.5 shows that 38.2% of the respondents 'agree' that the process of granting a large proportion of loans and credit facilities to a small number of the borrowers by the Libyan state-owned commercial banks led to the emergence of non-performing loans. On the other hand, 27% of the respondents were 'disagree' that those banks had taken this process. The results do not indicate a strong opinion on either side of the lickert scale. So, this result is evidenced by the mean value of 3, which indicates the 'neutral' group.

To follow above results, the following section explores the opinions of the participants on a related reason, which is the allocation of a large portion of loans and credit facilities given to non-matching economic activity, the results of which depicted in table 7.6.

Table 7. 6: The Allocation of a Large Portion of Loans and Credit Facilities to Non-matching Economic Activity

			Frequency	Percent
Valid	1	Strongly Disagree	4	4.5
	2	Disagree	10	11.2
	3	Neutral	18	20.2
	4	Agree	40	44.9
	5	Strongly Agree	17	19.1
		Total	89	100.0
Mean	3.6292			

Table 7.6 shows that 44.9% of the respondents 'agree' that the Libyan state-owned commercial banks had allocated a large portion of loans and credit facilities to non-matching economic activity. On the other hand, it can be seen that 20.2% of the respondents were 'neutral' with the reason presented in the above table causing the emergence of non-performing loans. Therefore, it can be said that the respondents' answers were between 'neutral' and 'agree' that the Libyan state-owned commercial

banks had allocated a large portion of loans and credit facilities to non-matching economic activity. This result is evidenced by the mean value of 3.6 which reflects an interval between the 'neutral' and 'agree' groups.

In many cases, the loan applicants are not new clients, especially with the sectors of trade and industry, which usually need huge amounts of money. Thus, traders and manufacturers resort to the banks to obtain the necessary funds in order to carry out their economic activities. Accordingly, banks grant money to traders and manufacturers in the form of loans and credit facilities. Therefore, table 7.7 depicts the perception analysis of the participants on the statement whether banks grant additional funding to the borrower without conducting sufficient studies in the results of the client's previous activities.

Table 7. 7: Granting Additional Funding to the Borrower without Conducting Sufficient Studies on the Results of the Client's Previous Activities

			Frequency	Percent
Valid	1	Strongly Disagree	1	1.1
	2	Disagree	10	11.2
	3	Neutral	9	10.1
	4	Agree	50	56.2
	5	Strongly Agree	19	21.3
		Total	89	100.0
Mean	3.8539			

Table 7.7 shows that 56.2% of the respondents 'agree', and 21.3% of the respondents were in strong agreement that the Libyan state-owned commercial banks had granted additional funding to the borrower without conducting sufficient study on the results of the previous activities of the client. Therefore, a total of 77.5% of the respondents were in agreement. So, it can be said that the rationale demonstrated in the above table caused the emergence of non-performing loans in the Libyan state-owned commercial banks. This result is evidenced by the mean value of 4 which relates to the agree group. On the other hand, it can be observed that this reason ranked as the fifth factor which leads to the emergence of non-performing loans in the Libyan state-owned commercial banks.

Table 7.8 depicts the perception analysis of the respondents whether Libyan commercial banks allow the borrower to use the loan amount before completing the loan file with the required documents, which again indicates bad bank practice.

Table 7. 8: Allow the Borrower to use the Loan Amount before Completing the Loan File with the Required Documents

			Frequency	Percent
Valid	1	Strongly Disagree	5	5.6
	2	Disagree	20	22.5
	3	Neutral	13	14.6
	4	Agree	35	39.3
	5	Strongly Agree	16	18.0
		Total	89	100.0
Mean	4.4157			

Table 7.8 shows that 39.3% of the respondents 'agree' that the process of allowing the borrower to use the loan amount before completing the loan file with the required documents caused non-performing loans in the Libyan state-owned commercial banks. On the other hand, it can be seen that 18% of the respondents were 'strongly agree' with the process taken by the bankers described in the above table. Accordingly, it can be said that 57.3% of the respondents 'agree' that non-performing loans were caused by the situation described in table 7.8. This result is evidenced by the mean value of 4.4 which falls into an interval between the 'agree' and 'strongly agree' group.

As part of the bank practices leading to non-performing loan, allowing borrowers to withdraw the full amount of the loan at once can also be considered. This also was directed to the respondents and their perception analysis is depicted in table 7.9.

Table 7. 9: Allowing the Borrower to Withdraw the Full Amount of the Loan at Once

			Frequency	Percent
Valid	1	Strongly Disagree	5	5.6
	2	Disagree	20	22.5
	3	Neutral	10	11.2
	4	Agree	35	39.3
	5	Strongly Agree	19	21.3
		Total	89	100.0
Mean	3.4831			

From table 7.9 it can be observed that 39.3% of the respondents 'agree' that the non-performing loans emerged in the Libyan state-owned commercial banks due to allowing the borrowers to withdraw the full amount of the loan at once. On the other hand, 22.5% of the respondents disagreed with the statement that the bankers allowed the borrowers to withdraw the full amount of the loans at once. So, it can be said that the respondents' answers were confined between 'neutral' and 'agree' with 60.6% of them agreeing to the statement. This result is evidenced by the mean values of 3.5 which correspond between the 'neutral' and 'agree' groups.

It is important that banks should be able to follow-up borrower activity after the loan granted so that it can be made sure that the loans are utilised in an efficient manner. This was explored with the respondents and the perception analysis is presented in table 7.10.

Table 7. 10: The Shortcomings in the Follow-up of Borrower Activity after the Loans Granted

			Frequency	Percent
Valid	1	Strongly Disagree	3	3.4
	2	Disagree	2	2.2
	3	Neutral	6	6.7
	4	Agree	49	55.1
	5	Strongly Agree	29	32.6
		Total	89	100.0
Mean	4.1124			

Table 7.10, shows that 55.1% of the respondents were 'agree' that these cases led to the appearance of non-performing loans in the Libyan state-owned commercial banks sector. Also, it can be noted that 32.6% of the respondents 'strongly agree' that the case in the above table had led to the emergence of non-performing loans (NPLs). Therefore, it can be observed that 87.7% of the total of the respondents 'agree' to the case that the shortcomings in the follow-up of borrower activity after the loan has been granted caused the problem of non-performing loans in the Libyan state-owned commercial banking sector. This result is evidenced by the mean value of just over 4 which reflects the 'agree' group. Finally, it can be said that this case was ranked as the third issue, which leads to non-performing loans in the Libyan state-owned commercial banks sector.

Non-performing loans could also be a result of non-professional banking practices, such as using personal relationships in the process of granting loans, which can be an important factor in developing countries where dual economy and informal networks play an important role in economic and financial activities. This, therefore, posed to the respondents and their perception analysis is presented in table 7.11.

Table 7. 11: Using Personal Relationships in the Process of Granting Loans

			Frequency	Percent
Valid	1	Strongly Disagree	3	3.4
	2	Disagree	7	7.9
	3	Neutral	4	4.5
	4	Agree	37	41.6
	5	Strongly Agree	38	42.7
		Total	89	100.0
Mean	4.1236			

As can be seen from table 7.11 that, 42.7% and 41.6% of the respondents were alternating between 'strongly agree' and 'agree' that the Libyan state-owned commercial banks have been exposed to non-performing loans by using a personal relationship in the process of granting loans. Accordingly, it can be said that 84.3% of the respondents are in 'agree' position with this statement. Consequently, this result is evidenced by the mean value of 4 which depicted the 'agree' group. Also, it can be noted that this issue was ranked as a second among the causes which led to the non-performing loans in the Libyans state-owned commercial banking.

Table 7. 12: Weakness of Control over the Credit Management

			Frequency	Percent
Valid	1	Strongly Disagree	3	3.4
	2	Disagree	12	13.5
	3	Neutral	9	10.1
	4	Agree	46	51.7
	5	Strongly Agree	19	21.3
		Total	89	100.0
Mean	3.7416			

Since weakness of control over the credit management as part of bank practice can be one of the reasons which caused non-performing loans, table 7.12 shows the perceptions of the participants on this issue. As can be seen, 51.7% of the respondents agree that there is a weakness in the credit management control function. Also, it can be seen that 21.3% of the respondents 'strongly agree' with this statement. Accordingly, this table presents that 73% of the total respondents 'agree' to consider that there was a weakness in the control over the credit management which had led to non-performing loans in the Libyan state-owned commercial banks. Additionally, this result is supported by the mean value of about 4 which falls into an interval corresponding the 'agree' group.

In summing this section of bank practices leading to non-performing loans, table 7.13 brings together the results so far in this section through mean ranking.

Table 7. 13: Mean Ranking of the Bank-related Reasons, which Caused Non-Performing Loans

	Reasons	Mean ranking
1	Allow the borrower to use the loan amount before completing the loan file with the required documents.	4.4157
2	Using personal relationships in the process of granting loans	4.1236
3	The shortcomings in the follow-up of borrower activity after the loans granted.	4.1124
4	The weakness in the use of financial analysis methods for the early detection of non-performing loans.	3.9888
5	The lack of clear and written loan policy.	3.9775
6	Lack of adequate attention given to the investigation of the loan applications submitted by clients.	3.9213
7	Granting additional funding to the borrower without conducting sufficient studies on the results of the client's previous activities.	3.8539
8	Weakness of control over the credit management.	3.7416
9	The allocation of a large portion of loans and credit facilities to non-matching economic activity.	3.6292
10	Allowing the borrower to withdraw the full amount of the loan at once.	3.4831
11	The overlap between the functions of the lending department and the follow-up department.	3.3371
12	Granting a large proportion of loans and credit facilities to a small number of borrowers.	3.0674

Table 7.13 shows the mean ranking of the respondents' views regarding the banking practice related reasons that caused non-performing loans in the Libyan state-owned commercial banks. The mean ranking of the reasons, which are listed from the highest to the lowest, shows that, the respondents 'agree' with some reasons and are 'neutral' with others. Furthermore, the highest mean rank is with 4.4157 relevant to the variable of allowing the borrower to use the loan amount before completing the loan file with the required documents. Additionally, granting a large proportion of loans

and credit facilities to a small number of borrowers is the lowest opted variable which is ranked as the least important variable with the mean value of 3.0674.

7.2.2. Factor Analysis

In order to substantiate the analysis so far, inferential test in the form of factor analysis is used in this section to locate the most important factors leading to non-performing loans in Libyan commercial banking. Therefore, factor analysis is used with the 12 factors/reasons which are analysed in a descriptive manner in the preceding section.

As identified in Chapter 5 (Research methodology chapter), in order to proceed with factor analysis, first it has to be established whether factor analysis is an appropriate method for the data used in this research. Therefore, Kaiser-Meyer-Olkin (KMO) and Bartlett's test is utilised and the results of which presented in table 7.14. It is expected that if the test result is higher than 0.6, then the data is fit for factor analysis.

Table 7. 14: KMO and Bartlett's Test on Bank-related Reasons Causing Non-performing Loans in Libyan State-owned Commercial Banks

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.863
Bartlett's Test of Sphericity	Approx. Chi-Square	413.645
	df	66
	Sig.	.000

Table 7.14 shows that the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy of bank-related reasons leading to non-performing loans in the Libyan state-owned commercial banks produced a value of 0.86 (rounded), which is far greater than 0.6. Also, the Bartlett's test of Sphericity recorded statistical significance is (0.000), which supports the factorability of the correlation matrix. Thus, the results depicted in table 7.14 shows that factor analysis is appropriate for this study. Hence, the following section presents the factor analysis results.

From the results shown in table 7.14, the analysis precedes with Principal Axis Factoring (PAF) and Varimax rotation with Kaiser Normalisation. According to Howitt and Cramer (2003) the Principal Axis Factoring (PAF) which recorded an Eigenvalue equal or greater than 1.0 is considered as significant. Therefore, Principal

Axis Factoring (PAF) can be used to identify the appropriate factors. The initial results of factor analysis are presented in table 7.15.

Table 7. 15: Total Variance Explained of Bank-related Reasons that Caused Non-performing Loans in Libyan State-owned Commercial Banks

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.242	43.680	43.680	4.762	39.682	39.682	2.740	22.833	22.833
2	1.166	9.716	53.396	.646	5.382	45.064	1.719	14.328	37.162
3	1.046	8.714	62.110	.503	4.192	49.256	1.451	12.094	49.256
4	.831	6.926	69.036						
5	.732	6.103	75.139						
6	.650	5.420	80.559						
7	.561	4.674	85.233						
8	.458	3.819	89.051						
9	.404	3.364	92.415						
10	.389	3.240	95.654						
11	.274	2.283	97.938						
12	.247	2.062	100.000						

Extraction Method: Principal Axis Factoring.

As can be seen from table 7.15, there are twelve items which can be simply reduced to three factors. The acceptable factors are extracted because they have Eigenvalues greater than 1.0. As a result, it can be seen that the total initial Eigenvalues of the acceptable factors are: 5.24 related to the first factor, 1.16 related to the second factor and 1.04 related to the third factor. Consequently, Factor 1 explains 23%, Factor 2 explains 14.33% and Factor 3 explains 12.1% of the variance. Thus, these three factors together explain a total variance of 49.25%; and hence they constitute the most important factors in explaining the bank practice related factors leading to non-performing loans.

Figure 7. 1: Scree Plot

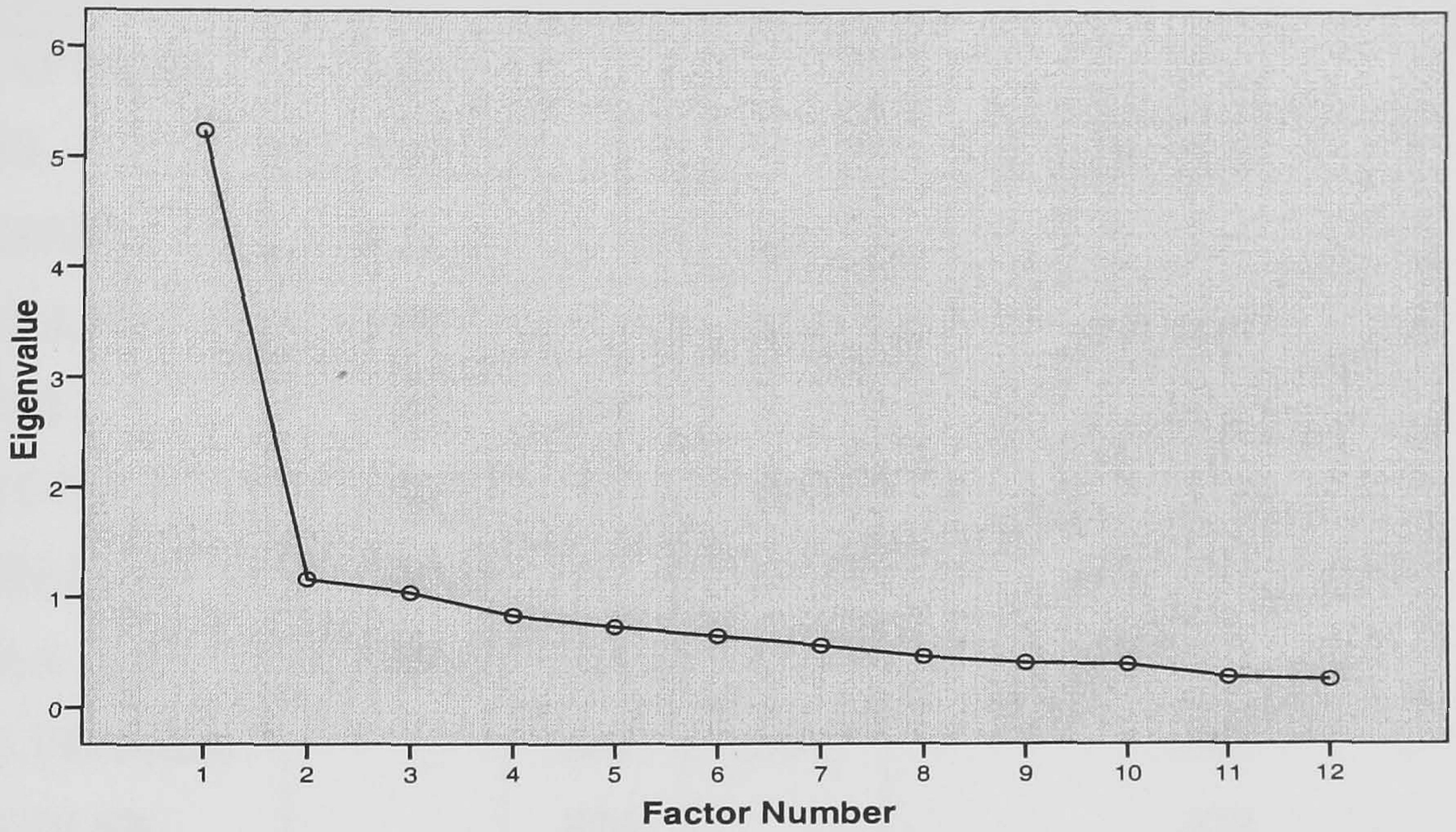


Figure 7.1, depicts the scree plot that the plot slopes steeply downwards from the first factor to the second factor. Also, it can be observed that the plot slopes start moving gradually towards the horizontal line starting from the second factor. As a result, this figure provides further evidence for the significance of the first, second and the third factor over other factors.

As part of the factor analysis, in the next step rotate factor matrix is established to distribute the factors among these three most important factors, the results of which can be seen in table 7.16.

Table 7. 16: Rotated Factor Matrix (a) on Bank-related Reasons that Caused Non-performing Loans in Libyan State-owned Commercial Banks

Variable	Factor			Communality of Each Variable
	1	2	3	
GAFWCSS	**.682**			.676
SFL	**.590**			.319
ABWFL	**.577**		**.352**	.531
WFAM	**.558**		**.434**	.614
UPR	**.556**	**.555**		.357
WCCM	**.525**		**.307**	.568
ABULBCF	**.509**			.530
LAA	**.408**	**.626**		.337
ALPLNMEA		**.587**	**.394**	.487
GLPLSB		**.576**		.424
LCWLP	**.427**		**.656**	.623
OF			**.550**	.444
Eigenvalue	5.242	1.166	1.046	
% of Variance	22.833	14.328	12.094	
Cumulative %	22.833	37.162	49.256	

Extraction Method: Principal Axis Factoring.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

According to Coakes and Steed (2001) the item which is recorded as a normal loading equal or greater than 0.3 is considered as a significant factor. The result of rotated factors presented in table 7.16 depicts three factors and 12 variables. The first factor includes 8 items with loadings from .41 to .70. The first factor also appeared with the highest Eigenvalue of 5.24 and variance of 23%. In terms of the second factor, it includes two items with loadings of .6 for both. The Eigenvalue and variance of the second factor records 1.16 and 14.33% respectively. The third factor includes two items with loadings .55 and .65. The Eigenvalue and variance of the third factor recorded 1.04 and 12.09 respectively. In supporting the results in table 7.15 it can be seen that the total of cumulative factors records 49.25%. It should be noted that the abbreviation of the variable in table 7.16 are explained in table 7.17.

Table 7. 17: The Variables Definitions of Bank-related Reasons that Caused Non-Performing Loans in Libyan State-owned Commercial Banks

Variables	Definition
GAFWCSS	Granting additional funding to the borrower without conducting sufficient studies on the results of the client's previous activities.
SFL	The shortcomings in the follow-up of borrower activity after the loans granted.
ABWFL	Allowing the borrower to withdraw the full amount of the loan at once.
WFAM	The weakness of using financial analysis methods for the early detection of non-performing loans.
UPR	Using personal relationships in the process of granting loans.
WCCM	Weakness of control over the credit management.
ABULBCF	Allow the borrower to use the loan amount before completing the loan file with the required documents.
LAA	Lack of adequate attention given to the investigation of the loan applications submitted by clients.
ALPLNMEA	The allocation of a large portion of loans and credit facilities to non-matching economic activity.
GLPLSB	Granting a large proportion of loans and credit facilities to a small number of borrowers.
LCWLP	The lack of clear and written loan policy.
OF	The overlap between the functions of the lending department and the follow-up department.

7.2.3. Cross-tabulation

In supporting the empirical evidence so far, this section expands the analysis by conducting cross-tabulation analysis with important demographic factor such as experience or seniority. This is chosen as control variable, because it was considered that there could be differences of opinions as to the bank practices between older and younger members of the staff in the Libyan commercial banking.

Table 7. 18: Cross-tabulation of Lack of Loan Policy with the Respondent's Experience

			The lack of clear and written loan policy (LCWLP)				
			Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	1	1	11	3	16
		% within Experience	6.3%	6.3%	68.8%	18.8%	100%
		% within LCWLP	12.5%	14.3%	20.8%	14.3%	18.0%
	6-10	Count	4	2	10	3	19
		% within Experience	21.1%	10.5%	52.6%	15.8%	100%
		% within LCWLP	50.0%	28.6%	18.9%	14.3%	21.3%
	11-15	Count	0	1	6	2	9
		% within Experience	.0%	11.1%	66.7%	22.2%	100%
		% within LCWLP	.0%	14.3%	11.3%	9.5%	10.1%
	16-20	Count	1	2	11	3	17
		% within Experience	5.9%	11.8%	64.7%	17.6%	100%
		% within LCWLP	12.5%	28.6%	20.8%	14.3%	19.1%
	21-25	Count	1	0	8	3	12
		% within Experience	8.3%	.0%	66.7%	25.0%	100%
		% within LCWLP	12.5%	.0%	15.1%	14.3%	13.5%
	Over 26	Count	1	1	7	7	16
		% within Experience	6.3%	6.3%	43.8%	43.8%	100%
		% within LCWLP	12.5%	14.3%	13.2%	33.3%	18.0%
Total		Count	8	7	53	21	89
		% within Experience	9.0%	7.9%	59.6%	23.6%	100%
		% within LCWLP	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.993(a)	15	.753
Likelihood Ratio	11.483	15	.718
Linear-by-Linear Association	2.315	1	.128
N of Valid Cases	89		

a. 18 cells (75.0%) have expected count less than 5. The minimum expected count is .71.

Cross-tabulation of the lack of clear and written loan policy and the experience of the staff members are shown in table 7.18. It can be seen that the Chi-square level is 0.753, which is higher than the significance level 0.05. As a result, it can be observed that there is no statistically significant relationship between the two variables. Moreover, it can be seen that we can not reject the null hypothesis that the two variables are independent. On the other hand, the majority of the respondents (83.2% in total) 'agree' and 'strongly agree' that the loan policy related to the Libyan state-owned commercial banks being not clear, which has led to the emergence of non-performing loans. Furthermore, it can be noted that there is semi-convergence in the views of the respondents in each of 'agree' and 'strongly agree' experience groups. For example, the respondents' views in the first and the sixth experience groups have the same rate which is recorded at 87.6% for each group.

Regarding the 'disagree' criteria, it can be seen that 50% of the respondents are concentrated in the 6-10 group. On the other hand, the highest percentage of the respondents' distribution regarding the 'agree' criteria is 20.8% for each of the groups 6-10 and 16-20 years. Furthermore, the highest percentage of the respondents' distribution regarding the 'strongly agree' criteria is 33.3%, related to the over 26 group.

Table 7. 19: Cross-tabulation of overlap between the functions of the lending department and the follow-up department with the respondent's experience

			The overlap between the functions of the lending department and the follow-up department (OF)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	5	3	0	7	1	16
		% within Experience	31.3%	18.8%	.0%	43.8%	6.3%	100%
		% within OF	62.5%	17.6%	.0%	15.6%	11.1%	18.0%
	6-10	Count	2	7	2	6	2	19
		% within Experience	10.5%	36.8%	10.5%	31.6%	10.5%	100%
		% within OF	25.0%	41.2%	20.0%	13.3%	22.2%	21.3%
	11-15	Count	0	3	0	4	2	9
		% within Experience	.0%	33.3%	.0%	44.4%	22.2%	100%
		% within OF	.0%	17.6%	.0%	8.9%	22.2%	10.1%
	16-20	Count	0	0	8	7	2	17
		% within Experience	.0%	.0%	47.1%	41.2%	11.8%	100%
		% within OF	.0%	.0%	80.0%	15.6%	22.2%	19.1%
	21-25	Count	0	2	0	8	2	12
		% within Experience	.0%	16.7%	.0%	66.7%	16.7%	100%
		% within OF	.0%	11.8%	.0%	17.8%	22.2%	13.5%
	Over 26	Count	1	2	0	13	0	16
		% within Experience	6.3%	12.5%	.0%	81.3%	.0%	100%
		% within OF	12.5%	11.8%	.0%	28.9%	.0%	18.0%
Total		Count	8	17	10	45	9	89
		% within Experience	9.0%	19.1%	11.2%	50.6%	10.1%	100%
		% within OF	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	54.713(a)	20	.000
Likelihood Ratio	55.333	20	.000
Linear-by-Linear Association	7.816	1	.005
N of Valid Cases	89		

a. 25 cells (83.3%) have expected count less than 5. The minimum expected count is .81.

Table 7.19 shows the cross-tabulation between the respondent's experience and the statement that overlap between the functions of the lending department and the follow-up department. It can be seen that the Chi-square level is 0.000 much lower than the customary level (0.05) which means that there is a high statistically significant relationship between the two variables. As a result, we can reject the null hypothesis that the two variables are independent. Thus, a total of 61% of the respondents 'agree' and 'strongly agree' that there is an existence of the overlap between the functions of granting loans and the follow-up of those loans, which led to non-performing loans. Furthermore, it can be noted that the more staff's experience the more an increase of the respondents' views towards 'agree' and 'strongly agree' criteria, that the reason mentioned above caused non-performing loans.

In addition, it can be noted that the highest percentage of the respondents' distribution regarding the 'strongly disagree' criteria is 62.5% and 25%, which related to the groups less than 5 and 6-10 respectively. Moreover, 41.2% of the respondents concentrated in the group 6-10 regarding the 'disagree' criteria. On the other hand, regarding the 'agree' criteria, the highest percentage of the respondents' distribution is 28.9%, which related to the over 26 group. Furthermore, regarding the 'strongly agree' criteria, the respondents distributed equally among the groups 6-10, 11-15, 16-20 and 21-25 at a percentage of 22.2% for each group.

Table 7. 20: Cross-tabulation of the Weakness of Using Financial Analysis Methods for the Early Detection of Non-performing Loans with the Respondent's Experience

			The weakness in the use of financial analysis methods for the early detection of non-performing loans (WFAM)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	0	3	0	7	6	16
		% within Experience	.0%	18.8%	.0%	43.8%	37.5%	100%
		% within WFAM	.0%	42.9%	.0%	15.6%	21.4%	18.0%
	6-10	Count	2	0	0	13	4	19
		% within Experience	10.5%	.0%	.0%	68.4%	21.1%	100%
		% within WFAM	66.7%	.0%	.0%	28.9%	14.3%	21.3%
	11-15	Count	0	1	2	3	3	9
		% within Experience	.0%	11.1%	22.2%	33.3%	33.3%	100%
		% within WFAM	.0%	14.3%	33.3%	6.7%	10.7%	10.1%
	16-20	Count	1	1	3	8	4	17
		% within Experience	5.9%	5.9%	17.6%	47.1%	23.5%	100%
		% within WFAM	33.3%	14.3%	50.0%	17.8%	14.3%	19.1%
	21-25	Count	0	1	1	7	3	12
		% within Experience	.0%	8.3%	8.3%	58.3%	25.0%	100%
		% within WFAM	.0%	14.3%	16.7%	15.6%	10.7%	13.5%
	Over 26	Count	0	1	0	7	8	16
		% within Experience	.0%	6.3%	.0%	43.8%	50.0%	100%
		% within WFAM	.0%	14.3%	.0%	15.6%	28.6%	18.0%
Total		Count	3	7	6	45	28	89
		% within Experience	3.4%	7.9%	6.7%	50.6%	31.5%	100%
		% within WFAM	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	24.141(a)	20	.236
Likelihood Ratio	26.732	20	.143
Linear-by-Linear Association	.968	1	.325
N of Valid Cases	89		

a. 21 cells (70.0%) have expected count less than 5. The minimum expected count is .30.

Table 7.20 shows cross-tabulation between the experience of the staff members who had participated to respond on the questionnaire and whether there is weakness in the use of the financial analysis methods for early detection of non-performing loans in the Libyan state-owned commercial banks. As can be seen, the chi-square level is 0.236, is higher than the 0.05 significance level, as a result there is no statistically significant relationship between the two variables. It can be concluded that most of the respondents in each experience group have similar views (agree and strongly agree) and that 82.1% in total 'agree' that the weakness of using the financial analysis methods had led to the emergence of non-performing loans in the Libyan state-owned commercial banks. However, seniority does not play a particular difference in explaining any variance.

Regarding the 'strongly disagree' criteria, it can be seen that the respondents are concentrated in the groups 6-10 and 16-20 by percentage of 66.7% and 33.3% respectively. Furthermore, in terms of the 'disagree' criteria the highest percentage of the respondents' distribution is 42.9%, which related to the group less than 5. On the other hand, 28.9% of the respondents are distributed in group 6-10 regarding the 'agree' criteria. Also, 28.6% and 21.4% of the respondents are distributed in the group over 26 and less than 5, which relates to the 'strongly agree' criteria.

Table 7. 21: Cross-tabulation of Lack of Adequate Attention on the Loan Application with the Respondent's Experience

			Lack of adequate attention given to the investigation of the loan applications submitted by clients (LAA)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	0	3	2	7	4	16
		% within Experience	.0%	18.8%	12.5%	43.8%	25.0%	100%
		% within LAA	.0%	27.3%	28.6%	17.1%	14.3%	18.0%
	6-10	Count	1	2	2	10	4	19
		% within Experience	5.3%	10.5%	10.5%	52.6%	21.1%	100%
		% within LAA	50.0%	18.2%	28.6%	24.4%	14.3%	21.3%
	11-15	Count	1	0	1	4	3	9
		% within Experience	11.1%	.0%	11.1%	44.4%	33.3%	100%
		% within LAA	50.0%	.0%	14.3%	9.8%	10.7%	10.1%
	16-20	Count	0	4	0	8	5	17
		% within Experience	.0%	23.5%	.0%	47.1%	29.4%	100%
		% within LAA	.0%	36.4%	.0%	19.5%	17.9%	19.1%
	21-25	Count	0	1	2	6	3	12
		% within Experience	.0%	8.3%	16.7%	50.0%	25.0%	100%
		% within LAA	.0%	9.1%	28.6%	14.6%	10.7%	13.5%
	Over 26	Count	0	1	0	6	9	16
		% within Experience	.0%	6.3%	.0%	37.5%	56.3%	100%
		% within LAA	.0%	9.1%	.0%	14.6%	32.1%	18.0%
Total		Count	2	11	7	41	28	89
		% within Experience	2.2%	12.4%	7.9%	46.1%	31.5%	100%
		% within LAA	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.526(a)	20	.553
Likelihood Ratio	20.679	20	.416
Linear-by-Linear Association	3.385	1	.066
N of Valid Cases	89		

a. 21 cells (70.0%) have expected count less than 5. The minimum expected count is .20.

Table 7.21 shows the cross-tabulation between the experiences related to the staff members and whether there is weakness in terms of giving the adequate attention on the process to investigate the loan applications submitted by clients. As the results indicate the Chi-square level is 0.553, which is higher than the significance level 0.05. Hence, there is no statistically significant relationship between the two variables. However, it could be concluded that a total of 77.6% of the respondents 'agree' and 'strongly agree' that there is a lack in terms of giving adequate attention to investigate the loan applications submitted by clients. On the other hand, it can be noted that the majority of the respondents have similar views that this problem led to the emergence of non-performing loans in the Libyan state-owned commercial banks, which implies that seniority does not have any significant impact on the results.

In addition, it can be seen that the respondents' distribution of the 'strongly disagree' criteria is equally 50% among the groups 6-10 and 11-15. Furthermore, respondents' distribution of the 'disagree' criteria is 36.4%, relating to the group 16-20 and 27.3% related to less than 5. On the other hand, the highest distribution of the respondents regarding the 'agree' criteria is 24.4% related to the group 6-10. Also, it can be noted that the highest distribution regarding the 'strongly agree' is 32.1% related to the over 26 group.

Table 7. 22: Cross-tabulation of Granting a Large Proportion of Loans to a Small Number of Clients with the Respondent's Experience

			Granting a large proportion of loans and credit facilities to a small number of borrowers (GLPLSB)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	3	3	2	6	2	16
		% within Experience	18.8%	18.8%	12.5%	37.5%	12.5%	100%
		% within GLPLSB	33.3%	12.5%	13.3%	17.6%	28.6%	18.0%
	6-10	Count	4	5	4	6	0	19
		% within Experience	21.1%	26.3%	21.1%	31.6%	.0%	100%
		% within GLPLSB	44.4%	20.8%	26.7%	17.6%	.0%	21.3%
	11-15	Count	0	2	4	2	1	9
		% within Experience	.0%	22.2%	44.4%	22.2%	11.1%	100%
		% within GLPLSB	.0%	8.3%	26.7%	5.9%	14.3%	10.1%
	16-20	Count	1	1	1	13	1	17
		% within Experience	5.9%	5.9%	5.9%	76.5%	5.9%	100%
		% within GLPLSB	11.1%	4.2%	6.7%	38.2%	14.3%	19.1%
	21-25	Count	1	5	1	4	1	12
		% within Experience	8.3%	41.7%	8.3%	33.3%	8.3%	100%
		% within GLPLSB	11.1%	20.8%	6.7%	11.8%	14.3%	13.5%
	Over 26	Count	0	8	3	3	2	16
		% within Experience	.0%	50.0%	18.8%	18.8%	12.5%	100%
		% within GLPLSB	.0%	33.3%	20.0%	8.8%	28.6%	18.0%
Total		Count	9	24	15	34	7	89
		% within Experience	10.1%	27.0%	16.9%	38.2%	7.9%	100%
		% within GLPLSB	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	31.471(a)	20	.049
Likelihood Ratio	33.494	20	.030
Linear-by-Linear Association	.234	1	.629
N of Valid Cases	89		

a. 25 cells (83.3%) have expected count less than 5. The minimum expected count is .71.

Table 7.22 shows the cross-tabulation between the respondents' experiences and whether the Libyan state-owned commercial banks have granted a large proportion of the loans and credit facilities to small number of borrowers had causing non-performing loans. The Chi-square level is 0.049, which is lower than the customary level 0.05. As a result, it can be said that there is statistically significant correlation between the two variables, which led us to reject the null hypothesis that the two variables are independent.

It can, therefore, be observed that the most experienced groups (21-25 and over 26) strongly disagree and disagree at 50% respectively that the Libyan state-owned commercial banks had granted a large proportion of loans to a small number of borrowers which led to the emergence of non-performing loans. On the other hand, a total of 82.4% and 50% respectively of the respondents in the experience groups 16-20 and less than 5 years 'agree' and 'strongly agree'. Also, a total of 47.4% of the respondents in the experience group 6-10 'strongly disagree' and 'disagree' that the Libyan state-owned commercial banks faced non-performing loans due to the issue of granting a large percentage of loans to the small number of clients. Moreover, a total of 44.4% of the respondents in the experience group 11-15 are 'neutral' regarding non-performing loans had emerged due to the same issue mentioned in the above table. Ultimately, it could be concluded that the respondents in each experience group have different views relating with the experience of the staff members, which evidences the impact and significance of seniority in the opinion expressed.

When 'strongly disagree' criteria is further investigated, it can be seen that the highest percentage of the respondents' distribution is 44.4% and 33.3%, which are related to the groups 06-10 and less than 5, respectively. Furthermore, 33.3% is the highest respondents' distribution regarding the 'disagree' criteria, which relates to the over 26 group. On the other hand, the highest percentage of the respondents' distribution regarding the 'agree' criteria is 38.2%, which relates to the group 16-20 years. Also, it can be noted that the highest percentage of the respondents' distribution regarding the 'strongly agree' criteria are equally among the groups less than 5 and over 26 at the percentage of over 28% for each group.

Table 7. 23: Cross-tabulation of Allocation of a Large Portion of Loans and Credit Facilities to Non-matching Activity with the Respondent's Experience

			The allocation of a large portion of loans and credit facilities to a non-matching economic activity (ALPLNMEA)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	1	3	4	4	4	16
		% within Experience	6.3%	18.8%	25.0%	25.0%	25.0%	100%
		% within ALPLNMEA	25.0%	30.0%	22.2%	10.0%	23.5%	18.0%
	6-10	Count	3	1	2	9	4	19
		% within Experience	15.8%	5.3%	10.5%	47.4%	21.1%	100%
		% within ALPLNMEA	75.0%	10.0%	11.1%	22.5%	23.5%	21.3%
	11-15	Count	0	0	4	2	3	9
		% within Experience	.0%	.0%	44.4%	22.2%	33.3%	100%
		% within ALPLNMEA	.0%	.0%	22.2%	5.0%	17.6%	10.1%
	16-20	Count	0	1	1	13	2	17
		% within Experience	.0%	5.9%	5.9%	76.5%	11.8%	100%
		% within ALPLNMEA	.0%	10.0%	5.6%	32.5%	11.8%	19.1%
	21-25	Count	0	3	4	3	2	12
		% within Experience	.0%	25.0%	33.3%	25.0%	16.7%	100%
		% within ALPLNMEA	.0%	30.0%	22.2%	7.5%	11.8%	13.5%
	Over 26	Count	0	2	3	9	2	16
		% within Experience	.0%	12.5%	18.8%	56.3%	12.5%	100%
		% within ALPLNMEA	.0%	20.0%	16.7%	22.5%	11.8%	18.0%
Total		Count	4	10	18	40	17	89
		% within Experience	4.5%	11.2%	20.2%	44.9%	19.1%	100%
		% within ALPLNMEA	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	29.185(a)	20	.084
Likelihood Ratio	30.007	20	.070
Linear-by-Linear Association	.267	1	.605
N of Valid Cases	89		

a. 25 cells (83.3%) have expected count less than 5. The minimum expected count is .40.

Table 7.23 shows the cross-tabulation between the respondents' experiences, and whether the Libyan state-owned commercial banks had allocated a large portion of loans and credit facilities to non-matching economic activities. As the results show, the Chi-square level is 0.084 higher than the customary level (0.05), so it can be said that there is no statistically significant correlation between the two variables. Furthermore, we can not reject the null hypothesis that the two variables are independent. It should, however, be stated that the result is closer to significance level. As the results demonstrate a total of 64% of the respondents 'agree' and 'strongly agree' that the Libyan state-owned commercial banks had been exposed to non-performing loans due to the allocation of a large portion of loans being granted to the non-matching economic activities. Most of the respondents in each experience group have similar views with regard to 'agree' and 'strongly agree'. However, it can be noted that the respondents' views are not entirely related to the level of their expertise, which indicates the rejection of the null hypothesis at the margin.

In addition, it can be seen that the highest respondents' distribution regarding the 'strongly disagree' criteria is 75% and 25%, which relates to the groups 6-10 years and less than 5 years, respectively. Furthermore, regarding the 'disagree' criteria the highest distribution is 30% for each of the groups less than 5 and 21-25. On the other hand, 32.5% (group 16-20) is the highest percentage of the respondents' distribution regarding the 'agree' criteria followed by 22.5%, for each of the groups 6-10 and over 26. Moreover, the highest respondents' distribution regarding the 'strongly agree' criteria is equally 23.5% for the groups less than 5 and 6-10.

Table 7. 24: Cross-tabulation of granting Additional Funding without Conducting the Sufficient Studies with the Respondent's Experience

			Granting additional funding to the borrower without conducting sufficient studies on the results of the client's previous activities (GAFWCSS)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	0	3	2	8	3	16
		% within Experience	.0%	18.8%	12.5%	50.0%	18.8%	100%
		% within GAFWCSS	.0%	30.0%	22.2%	16.0%	15.8%	18.0%
	6-10	Count	0	1	1	13	4	19
		% within Experience	.0%	5.3%	5.3%	68.4%	21.1%	100%
		% within GAFWCSS	.0%	10.0%	11.1%	26.0%	21.1%	21.3%
	11-15	Count	0	0	3	4	2	9
		% within Experience	.0%	.0%	33.3%	44.4%	22.2%	100%
		% within GAFWCSS	.0%	.0%	33.3%	8.0%	10.5%	10.1%
	16-20	Count	0	1	0	14	2	17
		% within Experience	.0%	5.9%	.0%	82.4%	11.8%	100%
		% within GAFWCSS	.0%	10.0%	.0%	28.0%	10.5%	19.1%
	21-25	Count	1	3	2	4	2	12
		% within Experience	8.3%	25.0%	16.7%	33.3%	16.7%	100%
		% within GAFWCSS	100.0%	30.0%	22.2%	8.0%	10.5%	13.5%
	Over 26	Count	0	2	1	7	6	16
		% within Experience	.0%	12.5%	6.3%	43.8%	37.5%	100%
		% within GAFWCSS	.0%	20.0%	11.1%	14.0%	31.6%	18.0%
Total		Count	1	10	9	50	19	89
		% within Experience	1.1%	11.2%	10.1%	56.2%	21.3%	100%
		% within GAFWCSS	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	26.439(a)	20	.152
Likelihood Ratio	24.304	20	.229
Linear-by-Linear Association	.001	1	.977
N of Valid Cases	89		

a. 24 cells (80.0%) have expected count less than 5. The minimum expected count is .10.

Table 7.24 shows the cross-tabulation between the respondent's experience and whether the Libyan state-owned commercial banks have granted additional funding to the borrowers without conducting sufficient studies on the results of the client's previous activities with the Chi-square level of 0.152, which is higher than the conventional level 0.05. Thus, there is no statistically significant relationship between the two variables. Ultimately, it can be concluded that a total of 77.5% of the respondents 'agree' and 'strongly agree' that the Libyan state-owned commercial banks have been exposed to the problem of non-performing loans as a result of granting additional funds to their clients without conducting sufficient studies on the borrowers' previous activities. However, it can be noted that there is no correlation between the level of the respondent's experience and their views, which appear in the previous table, which is evidenced by the Chi-square level.

In addition, it can be noted that 100% of the respondents concentrated in the group 21-25 'strongly disagree'. Furthermore, the highest distribution of the respondents regarding the 'disagree' criteria is equally 30%, relating to the groups less than 5 years and 21-25 years. On the other hand, the groups 6-10 years and 16-20 years are recorded as the highest distribution of the respondents at the percentage of 26% and 28% respectively regarding the 'agree' criteria. Also, it can be noted that the respondents distributed among the groups 6-10 years and over 26 years by percentage of 21.1% and 31.6% respectively, relating to the 'strongly agree' criteria.

Table 7. 25: Cross-tabulation of allowing Client to Use the Loan before Completing the Loan File with the Respondent's Experience

			Allow the borrower to use the loan amount before completing the loan file with the required documents (ABULBCF)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	1	3	4	4	4	16
		% within Experience	6.3%	18.8%	25.0%	25.0%	25.0%	100%
		% within ABULBCF	20.0%	15.0%	30.8%	11.4%	25.0%	18.0%
	6-10	Count	2	3	2	7	5	19
		% within Experience	10.5%	15.8%	10.5%	36.8%	26.3%	100%
		% within ABULBCF	40.0%	15.0%	15.4%	20.0%	31.3%	21.3%
	11-15	Count	0	0	3	3	3	9
		% within Experience	.0%	.0%	33.3%	33.3%	33.3%	100%
		% within ABULBCF	.0%	.0%	23.1%	8.6%	18.8%	10.1%
	16-20	Count	1	2	2	10	2	17
		% within Experience	5.9%	11.8%	11.8%	58.8%	11.8%	100%
		% within ABULBCF	20.0%	10.0%	15.4%	28.6%	12.5%	19.1%
	21-25	Count	1	3	2	5	1	12
		% within Experience	8.3%	25.0%	16.7%	41.7%	8.3%	100%
		% within ABULBCF	20.0%	15.0%	15.4%	14.3%	6.3%	13.5%
	Over 26	Count	0	9	0	6	1	16
		% within Experience	.0%	56.3%	.0%	37.5%	6.3%	100%
		% within ABULBCF	.0%	45.0%	.0%	17.1%	6.3%	18.0%
Total		Count	5	20	13	35	16	89
		% within Experience	5.6%	22.5%	14.6%	39.3%	18.0%	100%
		% within ABULBCF	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.125(a)	20	.132
Likelihood Ratio	29.907	20	.071
Linear-by-Linear Association	2.141	1	.143
N of Valid Cases	89		

a. 26 cells (86.7%) have expected count less than 5. The minimum expected count is .51.

The cross-tabulation between the respondent's experience and whether the Libyan state-owned commercial banks allowed the borrowers to use the amount of loans prior to the completion of their loans files is explored in table 7.25. The Chi-square level is 0.132, which is higher than the statistically significant level, which implies that there is no statistically significant relationship between the two variables. On the other hand, it can be noted that the total of 57.3% of the respondents 'agree' and 'strongly agree' that non-performing loans had emerged by allowing the borrowers to use the amount of loans before the completion of their files by the required documents. Also, it can be noted that all the respondent's views were low so there is not a strong influence of the level of expertise interrogators on their views, as evidenced with the Chi-square test.

Regarding the 'strongly disagree' criteria, it can be seen that 40% of the respondents are distributed among the group 6-10. Moreover, regarding the 'disagree' criteria, the highest respondents' distribution is 45% which is related to the over 26 group. On the other hand, it can be seen that the highest percentage of the respondents' distribution regarding the 'agree' criteria is 28.6%, which relates to the 16-20 group. Furthermore, in terms of the 'strongly agree' criteria, 31.3% and 25% of the respondents are distributed among the groups 6-10 and less than 5 respectively.

Table 7. 26: Cross-tabulation of allowing Borrower to Withdraw the Full Amount of Loan at Once with the Respondent's Experience

			Allowing the borrower to withdraw the full amount of the loan at once (ABWFL)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	2	5	1	6	2	16
		% within Experience	12.5%	31.3%	6.3%	37.5%	12.5%	100%
		% within ABWFL	40.0%	25.0%	10.0%	17.1%	10.5%	18.0%
	06-10	Count	3	3	3	7	3	19
		% within Experience	15.8%	15.8%	15.8%	36.8%	15.8%	100%
		% within ABWFL	60.0%	15.0%	30.0%	20.0%	15.8%	21.3%
	11-15	Count	0	0	2	4	3	9
		% within Experience	.0%	.0%	22.2%	44.4%	33.3%	100%
		% within ABWFL	.0%	.0%	20.0%	11.4%	15.8%	10.1%
	16-20	Count	0	3	3	9	2	17
		% within Experience	.0%	17.6%	17.6%	52.9%	11.8%	100%
		% within ABWFL	.0%	15.0%	30.0%	25.7%	10.5%	19.1%
	21-25	Count	0	5	1	4	2	12
		% within Experience	.0%	41.7%	8.3%	33.3%	16.7%	100%
		% within ABWFL	.0%	25.0%	10.0%	11.4%	10.5%	13.5%
	Over 26	Count	0	4	0	5	7	16
		% within Experience	.0%	25.0%	.0%	31.3%	43.8%	100%
		% within ABWFL	.0%	20.0%	.0%	14.3%	36.8%	18.0%
Total		Count	5	20	10	35	19	89
		% within Experience	5.6%	22.5%	11.2%	39.3%	21.3%	100%
		% within ABWFL	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	24.563(a)	20	.219
Likelihood Ratio	28.483	20	.098
Linear-by-Linear Association	3.290	1	.070
N of Valid Cases	89		

a. 26 cells (86.7%) have expected count less than 5. The minimum expected count is .51.

Table 7.26 shows the cross-tabulation between the respondent's experience and whether the Libyan state-owned commercial banks allow their clients to withdraw the full amount of loans at once. However, the results do not indicate a statistically significant relationship between the two variables as Chi-square level, which is 0.219 higher than the significance level (0.05). As a result, we can not reject the null hypothesis that the two variables are independent. On the other hand, it can be noted that 60.6% of the respondents 'agree' and 'strongly agree' that the Libyan state-owned commercial banks allow to their clients to withdraw the full amount of the loans at once. However, a particular pattern among the seniority could not be observed, which explains the statistically insignificant result.

In addition, regarding the 'strongly disagree' criteria the respondents are concentrated in the groups 6-10 years and less than 5 years at the percentages of 60% and 40% respectively. Moreover, for the 'disagree' criteria it can be seen that the respondents are equally distributed at 25% among the groups less than 5 years and 21-25 years. On the other hand, the highest percentage of the respondents' distribution for the 'agree' criteria is 25.7% related to the group 16-20 years. Furthermore, 36.8% is the highest percentage of the respondents' distribution related to the over 26 group, regarding the 'strongly agree' criteria.

Table 7. 27: Cross-tabulation of the Shortcomings in the Follow-up of the Loans Granted with the Respondent's Experience

			The shortcomings in the follow-up of the loans granted by the follow-up of the borrower activity (SFL)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	1	0	3	9	3	16
		% within Experience	6.3%	.0%	18.8%	56.3%	18.8%	100%
		% within SFL	33.3%	.0%	50.0%	18.4%	10.3%	18.0%
	6-10	Count	1	1	1	12	4	19
		% within Experience	5.3%	5.3%	5.3%	63.2%	21.1%	100%
		% within SFL	33.3%	50.0%	16.7%	24.5%	13.8%	21.3%
	11-15	Count	0	0	1	3	5	9
		% within Experience	.0%	.0%	11.1%	33.3%	55.6%	100%
		% within SFL	.0%	.0%	16.7%	6.1%	17.2%	10.1%
	16-20	Count	1	1	1	9	5	17
		% within Experience	5.9%	5.9%	5.9%	52.9%	29.4%	100%
		% within SFL	33.3%	50.0%	16.7%	18.4%	17.2%	19.1%
	21-25	Count	0	0	0	9	3	12
		% within Experience	.0%	.0%	.0%	75.0%	25.0%	100%
		% within SFL	.0%	.0%	.0%	18.4%	10.3%	13.5%
	Over 26	Count	0	0	0	7	9	16
		% within Experience	.0%	.0%	.0%	43.8%	56.3%	100%
		% within SFL	.0%	.0%	.0%	14.3%	31.0%	18.0%
Total		Count	3	2	6	49	29	89
		% within Experience	3.4%	2.2%	6.7%	55.1%	32.6%	100%
		% within SFL	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.207(a)	20	.508
Likelihood Ratio	21.285	20	.381
Linear-by-Linear Association	5.915	1	.015
N of Valid Cases	89		

a. 21 cells (70.0%) have expected count less than 5. The minimum expected count is .20.

Potential statistical correlation between the respondent's experiences and whether there is shortcoming by the Libyan state-owned commercial in terms of follow-up of the borrowers' activities are explored through the perceptions of the participants in table 7.27. The results show that Chi-square level is 0.508, which is higher than the statistically significant level of 0.05, which implies that there is no statistically significant relationship between the two variables. This can be observed in the irregular pattern in relation to seniority. For instance, 87.7% of the respondents 'agree' and 'strongly agree' that non-performing loans had emerged due to the shortcomings in the follow-up of the loans granted by the Libyan state-owned commercial banks. Moreover, it can be noted that most of the respondents in each experience group have similar views regarding the absence of the correlation between the level of the respondent's experience and their answers, which is evident from the statistical test.

In addition, it can be seen that for the 'strongly disagree' criteria, the respondents are equally distributed at 33.3% of each of the groups less than 5, 6-10 and 16-20. Furthermore, the respondents' distribution regarding the 'disagree' criteria is 50% among the groups 6-10 and 16-20, respectively. On the other hand, regarding the 'agree' criteria, the highest percentage of the respondents' distribution is 24.5%, which relates to the group 6-10. Also, 31% of the respondents are concentrated in the over 26 group regarding the 'strongly agree' criteria.

Table 7. 28: Cross-tabulation of Using Personal Relationships in the Process of Granting Loans with the Respondent's Experience

			Using personal relationships in the process of granting loans (UPR)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	1	0	3	5	7	16
		% within Experience	6.3%	.0%	18.8%	31.3%	43.8%	100%
		% within UPR	33.3%	.0%	75.0%	13.5%	18.4%	18.0%
	6-10	Count	2	1	1	8	7	19
		% within Experience	10.5%	5.3%	5.3%	42.1%	36.8%	100%
		% within UPR	66.7%	14.3%	25.0%	21.6%	18.4%	21.3%
	11-15	Count	0	0	0	3	6	9
		% within Experience	.0%	.0%	.0%	33.3%	66.7%	100%
		% within UPR	.0%	.0%	.0%	8.1%	15.8%	10.1%
	16-20	Count	0	4	0	8	5	17
		% within Experience	.0%	23.5%	.0%	47.1%	29.4%	100%
		% within UPR	.0%	57.1%	.0%	21.6%	13.2%	19.1%
	21-25	Count	0	2	0	7	3	12
		% within Experience	.0%	16.7%	.0%	58.3%	25.0%	100%
		% within UPR	.0%	28.6%	.0%	18.9%	7.9%	13.5%
	Over 26	Count	0	0	0	6	10	16
		% within Experience	.0%	.0%	.0%	37.5%	62.5%	100%
		% within UPR	.0%	.0%	.0%	16.2%	26.3%	18.0%
Total		Count	3	7	4	37	38	89
		% within Experience	3.4%	7.9%	4.5%	41.6%	42.7%	100%
		% within UPR	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.637(a)	20	.060
Likelihood Ratio	31.460	20	.049
Linear-by-Linear Association	1.375	1	.241
N of Valid Cases	89		

a. 21 cells (70.0%) have expected count less than 5. The minimum expected count is .30.

The results of cross-tabulation regarding using personal relationships in the process of granting loans with the respondent's experience are depicted in table 7.28 with Chi-square level is 0.060, which is slightly higher than the statistical significance level of 0.05. This implies that we can reject the null hypothesis at the margin implying that there is a statistically significant relationship between the two variables. In other words, we can conclude that seniority can explain some of the variation between these two variables. This is observed in the distribution of responses, as it can be seen that the total of 84.3% of the respondents 'agree' and 'strongly agree' that non-performing loans emerged by using personal relationships in the process of granting loans. Accordingly, it can be demonstrated that most of the respondents in each experience group have similar views regarding the emergence of non-performing loans in the Libyan state-owned commercial banks, which is due to the reason mentioned in the previous table.

Regarding the 'strongly disagree' criteria, it can be seen that 66.7% and 33.3% of the respondents are distributed among the groups 6-10 and less than 5 respectively. In addition, 57.1% and 28.6% of the respondents respectively are distributed among the groups 16-20 and 21-25 regarding the 'disagree' criteria. On the other hand, the highest respondents' distribution related to the 'agree' criteria is equally 21.6% for each of the groups 6-10 and 16-20. Furthermore, 26.3% of the respondents are concentrated in the over 26 group, which is the highest in terms of 'strongly agree'.

Table 7. 29: Cross-tabulation of Weakness of Control over the Credit Management with the Respondent's Experience

			Weakness of control over the credit management (WCCM)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	1	5	0	7	3	16
		% within Experience	6.3%	31.3%	.0%	43.8%	18.8%	100%
		% within WCCM	33.3%	41.7%	.0%	15.2%	15.8%	18.0%
	6-10	Count	1	2	4	12	0	19
		% within Experience	5.3%	10.5%	21.1%	63.2%	.0%	100%
		% within WCCM	33.3%	16.7%	44.4%	26.1%	.0%	21.3%
	11-15	Count	0	0	2	5	2	9
		% within Experience	.0%	.0%	22.2%	55.6%	22.2%	100%
		% within WCCM	.0%	.0%	22.2%	10.9%	10.5%	10.1%
	16-20	Count	0	1	1	11	4	17
		% within Experience	.0%	5.9%	5.9%	64.7%	23.5%	100%
		% within WCCM	.0%	8.3%	11.1%	23.9%	21.1%	19.1%
	21-25	Count	0	2	2	3	5	12
		% within Experience	.0%	16.7%	16.7%	25.0%	41.7%	100%
		% within WCCM	.0%	16.7%	22.2%	6.5%	26.3%	13.5%
	Over 26	Count	1	2	0	8	5	16
		% within Experience	6.3%	12.5%	.0%	50.0%	31.3%	100%
		% within WCCM	33.3%	16.7%	.0%	17.4%	26.3%	18.0%
Total		Count	3	12	9	46	19	89
		% within Experience	3.4%	13.5%	10.1%	51.7%	21.3%	100%
		% within WCCM	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	25.911(a)	20	.169
Likelihood Ratio	33.505	20	.030
Linear-by-Linear Association	3.761	1	.052
N of Valid Cases	89		

a. 25 cells (83.3%) have expected count less than 5. The minimum expected count is .30.

Table 7.29 shows the cross-tabulation between the experience of the staff members and whether there is weakness in terms of the control over credit management in the Libyan state-owned commercial banks. The analysis produced Chi-square level of 0.169, which is higher than the statistically significant level 0.05. So it can be said that there is no statistically significant relationship between the two variables. Accordingly, the majority of the respondent in each of the experience groups have similar views (agree and strongly agree) regarding the weakness of control over credit management of the Libyan state-owned commercial banks. On the other hand, it can be noted that total of 73% of the respondents 'agree' and 'strongly agree' that the weakness of control over credit management of the Libyan state-owned commercial banks led to non-performing loans, which explains the statistical insignificance and hence the insignificant impact of seniority.

In addition, it can be seen that the respondents are distributed equally among the groups less than 5 years and over 26 years at a percentage of 33.3% for each group, related to the 'strongly disagree' criteria. Furthermore, regarding the 'disagree' criteria, 41.7% of the respondents are concentrated in the group less than 5. On the other hand, 26.1% and 23.9% of the respondents are distributed among the groups 6-10 and 16-20 as the highest related to the 'agree' criteria. Moreover, it can be noted that the highest distribution of the respondents regarding the 'strongly agree' criteria is 26.3% for each of the groups 21-25 and over 26.

7.3. COLLATERAL-RELATED REASONS

In discussing the reasons on non-performing loans in Chapter 2, collateral is considered as one of the reasons in the literature, which are the assets required by the lenders. Furthermore, the collateral is used by the lenders in terms of reducing the risk of non-recovery of their funds, which are in the form of loans granted. Thus, the lender can use the collateral in the event the borrowers fail to repay the amount of loan. It is also suggested in the literature that the emergence of non-performing loans may be due to the guarantees provided by the clients. The following sections analysis the respondents opinions and perceptions on the emergence of non-performing loans in the Libyan state-owned commercial banks caused by reasons related to collateral.

7.3.1. Descriptive Analysis

As an initial analysis, respondents perception on the overestimation of collateral value is measured as one of the reasons of non-performing loans as part of shortcomings in the bank practices, the results of which can be seen in table 7.30.

Table 7. 30: Overestimation of the Collateral Value

			Frequency	Percent
Valid	1	Strongly Disagree	2	2.2
	2	Disagree	8	9.0
	3	Neutral	11	12.4
	4	Agree	38	42.7
	5	Strongly Agree	30	33.7
		Total	89	100.0

Mean	3.9663

It can be seen from table 7.30 that 42.7% of the respondents agree that the clients had overestimated the collateral value of the guarantees which had been provided to the Libyan state-owned commercial banks. Also, 33.7% of the respondents 'strongly agree' with the issue mentioned in the previous table. As a result, it can be said that 76.4% of the respondents 'agree' that non-performing loans indicated in the Libyan state-owned commercial banks are caused by overestimation of collateral values. This result is evidenced by the mean value of 4, which is falls into the 'agree' group.

Table 7. 31: Difficulty in Converting Some Types of Collateral into Liquidity

			Frequency	Percent
Valid	1	Strongly Disagree	1	1.1
	2	Disagree	8	9.0
	3	Neutral	6	6.7
	4	Agree	36	40.4
	5	Strongly Agree	38	42.7
		Total	89	100.0
Mean	4.1461			

Table 7.31 shows that the proportion of 42.7% and 40.4% of the respondents respectively 'strongly agree' and agree that non-performing loans emerged in the Libyan state-owned commercial banks are due to the complete difficulty of liquidating some types of collateral. Accordingly, it can be seen that 83.1% of the respondents 'agree' that this issue has led to non-performing loans. Thus, the mean value of 4 is considered as the evidence of the respondents which corresponds with the 'agree' group. Consequently, it can be said that the difficulty of converting some types of collateral to liquidity is ranked as the second difficulty faced by the Libyan state-owned commercial banks in relation to collateral.

Theoretically, there are some types of collateral that are subjected to the shortfall in its value with the passage of time, which can cause non-performing loans in terms of shortcomings in the collateral. This is explored in table 7.32.

Table 7. 32: Some Types of Guarantees are subjected to the Shortfall in its Value with the Passage of Time, and Hence Fail to Meet the Value of the Credit

			Frequency	Percent
Valid	1	Strongly Disagree	0.0	0.0
	2	Disagree	3	3.4
	3	Neutral	9	10.1
	4	Agree	42	47.2
	5	Strongly Agree	35	39.3
		Total	89	100.0
Mean	4.2247			

Table 7.32 shows that 47.2% of the respondents 'agree' that the Libyan state-owned commercial banks faced the problem of diminishing values of collateral within the passage of time which fails to meet the value of the credit.. Also, it can be noted that 39.3% of the respondents 'strongly agree' with the issue described in the above table. Hence, it can be said that 86.5% of the respondents 'agree' that the shortfall in some types of collateral led to non-performing loans in the Libyan state-owned commercial banks. This result is evidenced by the mean value of over 4, which corresponds to the 'agree' group and skews towards 'strongly agree' group. Thus, this reason is ranked as the most important reasons among the difficulties related to such collateral causing non-performing loans in the Libya state-owned commercial banks, which is evidence with the mean value.

Table 7. 33: The use of the Same Collateral to obtain More Than one Loan

			Frequency	Percent
Valid	1	Strongly Disagree	4	4.5
	2	Disagree	20	22.5
	3	Neutral	18	20.2
	4	Agree	35	39.3
	5	Strongly Agree	12	13.5
		Total	89	100.0
Mean	3.3483			

It can be seen from table 7.33 that 39.3% of the respondents agree that some clients used the same collateral in more than one loan application. It can also be noted that 22.5% of the respondents 'disagree' with the contention that usage of the same collateral should be considered as an important reason of non-performing loans. Accordingly, it can be said that the respondent's answers were neutral in the practise of using same collateral by some clients to obtain more than one loan which led to non-performing loans in the Libyan state-owned commercial banks. This result is evidenced by the mean value of 3.3, which corresponds to the 'neutral' group.

Table 7. 34: The Disposition of the Borrower in Total or Partial Value of the Collateral before the Repayment of the Loan Value

			Frequency	Percent
Valid	1	Strongly Disagree	8	9.0
	2	Disagree	29	32.6
	3	Neutral	18	20.2
	4	Agree	24	27.0
	5	Strongly Agree	10	11.2
		Total	89	100.0
Mean	2.9888			

Respondents' views on the statement that the disposition of the borrower in the total or partial value of the collateral before the repayment of the loan value can be considered as one of the reasons of non-performing loans is explored in table 7.34. As can be seen, 32.6% of the respondents 'disagree' that the clients of Libyan state-owned commercial banks had disposed of total or part of the collateral before the repayment of their obligations. On the other hand, 27% of the respondents 'agreed' with the issue presented in the previous table. Accordingly, it can be said that the respondents' answers were 'neutral'. Hence, it can be considered that this issue is not an important cause of the non-performing loans in the Libyan state-owned commercial banks. This result is evidenced by the mean value of 3, which corresponds to the 'neutral' group.

In summing the results related to the collateral sources of non-performing loan, table 7.35 brings together the results discussed so far by employing mean ranking as a method to rank the identified causes of collateral related reasons.

Table 7. 35: Mean Ranking of Collateral-related Reasons Causing Non-performing Loans

	Reasons	Mean ranking
1	Some types of guarantees are subjected to the shortfall in its value with the passage of time, and hence fail to meet the value of the credit.	4.2247
2	Difficulty in converting some types of collateral into liquidity.	4.1461
3	Overestimation of the collateral value.	3.9663
4	The use of the same collateral to obtain more than one loan.	3.3483
5	The disposition of the borrower in total or partial value of the collateral before the repayment of the loan value.	2.9888

Table 7.35 shows the mean ranking of the collateral-related reasons, which caused non-performing loans in the Libyan state-owned commercial banking sector as explored in the preceding section. Accordingly, this table has been designed to contain the highest reasons to the lowest related to the respondents' views. Therefore, it can be noted that the respondents 'agree' with some reasons and 'neutral' with others. For instance, the statement or the factor that some types of guarantees are subjected to the shortfall in their value with the passage of time, and hence fail to meet the value of the credit received the highest response and mean value of 4.2247 as the highest ranked factor. Furthermore, the variable related to the disposition of the borrower in total or partial value of the collateral before the repayment of the loan value, has recorded the lowest mean rank by 2.9888.

7.3.2. Cross-tabulation

In order to provide further evidence to the established results in the preceding section related to collateral sourced reasons of non-performing in Libyan state-owned commercial banking, cross tabulation is utilised as a method. In doing so, each of the collateral related reason cross-tabulated with a control variable, namely experience or the seniority of the respondents. The rationale, as explained before, stems from the fact that age gap in terms of seniority in the workplace might explain some of the differences in the opinions of the respondents to the related issues. Thus, the following section provides details of the cross-tabulation of collateral related factors with the experience of the respondents.

Table 7. 36: Cross-tabulation of Overestimation of the Collateral Value with the Respondent's Experience

			Overestimation of the collateral value (OCV)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	0	2	4	5	5	16
		% within Experience	.0%	12.5%	25.0%	31.3%	31.3%	100%
		% within OCV	.0%	25.0%	36.4%	13.2%	16.7%	18.0%
	6-10	Count	2	2	2	10	3	19
		% within Experience	10.5%	10.5%	10.5%	52.6%	15.8%	100%
		% within OCV	100%	25.0%	18.2%	26.3%	10.0%	21.3%
	11-15	Count	0	0	2	3	4	9
		% within Experience	.0%	.0%	22.2%	33.3%	44.4%	100%
		% within OCV	.0%	.0%	18.2%	7.9%	13.3%	10.1%
	16-20	Count	0	1	3	3	10	17
		% within Experience	.0%	5.9%	17.6%	17.6%	58.8%	100%
		% within OCV	.0%	12.5%	27.3%	7.9%	33.3%	19.1%
	21-25	Count	0	2	0	7	3	12
		% within Experience	.0%	16.7%	.0%	58.3%	25.0%	100%
		% within OCV	.0%	25.0%	.0%	18.4%	10.0%	13.5%
	Over 26	Count	0	1	0	10	5	16
		% within Experience	.0%	6.3%	.0%	62.5%	31.3%	100%
		% within OCV	.0%	12.5%	.0%	26.3%	16.7%	18.0%
Total		Count	2	8	11	38	30	89
		% within Experience	2.2%	9.0%	12.4%	42.7%	33.7%	100%
		% within OCV	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.620(a)	20	.119
Likelihood Ratio	30.256	20	.066
Linear-by-Linear Association	2.808	1	.094
N of Valid Cases	89		

a. 21 cells (70.0%) have expected count less than 5. The minimum expected count is .20.

Table 7.36 shows the cross-tabulation between the respondents' experiences and whether there is overestimation of the collateral value provided by the clients of the Libyan state-owned commercial banks. As can be seen the Chi-square level is 0.119, which is higher than 0.05 (the statistically significant level). As a result, it can be said that there is no statistically significant correlation between the two variables. It can be concluded that total of 76.4% of the respondents 'agree' and 'strongly agree' that there is overestimation of the guarantee values provided by the borrowers. On the other hand, most of the respondents in each of the experience groups have similar answers that overestimation of the guarantee values caused the emergence of non-performing loans in the Libyan state-owned commercial banks. Since there is no any particular pattern related to seniority, it is expected that statistical test to produce insignificant result.

In addition, it can be noted that 100% of the respondents concentrated in the group 6-10 'strongly disagree'. Furthermore, it can be noted that the respondents are equally distributed among the groups less than 5, 06-10 and 21-25 years by the percentage of 25% for each group, which relates to the 'disagree' criteria. On the other hand, the highest distribution of the respondents regarding the 'agree' criteria is 26.3% related to each of the groups 6-10 and over 26. Also, it can be seen that 33.3% of the respondents considered in the group 16-20, 'agree'.

Table 7. 37: Cross-tabulation of Difficulty in Converting Collateral into Liquidity with the Respondent's Experience

			Difficulty in converting some types of collaterals into liquidity (DCCL)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	0	2	0	9	5	16
		% within Experience	.0%	12.5%	.0%	56.3%	31.3%	100%
		% within DCCL	.0%	25.0%	.0%	25.0%	13.2%	18.0%
	6-10	Count	0	4	3	8	4	19
		% within Experience	.0%	21.1%	15.8%	42.1%	21.1%	100%
		% within DCCL	.0%	50.0%	50.0%	22.2%	10.5%	21.3%
	11-15	Count	0	0	1	3	5	9
		% within Experience	.0%	.0%	11.1%	33.3%	55.6%	100%
		% within DCCL	.0%	.0%	16.7%	8.3%	13.2%	10.1%
	16-20	Count	1	1	0	6	9	17
		% within Experience	5.9%	5.9%	.0%	35.3%	52.9%	100%
		% within DCCL	100.0%	12.5%	.0%	16.7%	23.7%	19.1%
	21-25	Count	0	0	2	4	6	12
		% within Experience	.0%	.0%	16.7%	33.3%	50.0%	100%
		% within DCCL	.0%	.0%	33.3%	11.1%	15.8%	13.5%
	Over 26	Count	0	1	0	6	9	16
		% within Experience	.0%	6.3%	.0%	37.5%	56.3%	100%
		% within DCCL	.0%	12.5%	.0%	16.7%	23.7%	18.0%
Total		Count	1	8	6	36	38	89
		% within Experience	1.1%	9.0%	6.7%	40.4%	42.7%	100%
		% within DCCL	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.943(a)	20	.292
Likelihood Ratio	25.497	20	.183
Linear-by-Linear Association	4.043	1	.044
N of Valid Cases	89		

a. 21 cells (70.0%) have expected count less than 5. The minimum expected count is .10.

Cross-tabulation of the respondents' experiences with the difficulty to convert some types of collateral provided by the borrowers into liquidity is explored in table 7.37. As can be seen, the chi-square test produced 0.292, which is higher than the significance level 0.05, which implies that there is no statistically significant relationship between the two variables, and we can not reject the null hypothesis that the two variables are independent. As a result, 83.1% of the respondents 'agree' and 'strongly agree' that there is a difficulty to convert some types of collateral provided by the borrowers into liquidity. It can be noted that most of the respondents in each experience group 'agree' and 'strongly agree' that the difficulty to convert some types of collaterals into liquidity is considered as one of the reasons which led to the emergence of non-performing loans in the Libyan state-owned commercial banks. Thus, seniority or the experience of the respondents does not have a particular impact on the responses given to the mentioned statement.

In supporting the above result, for the 'strongly disagree' criteria, for instance, it can be seen that 100% of the respondents are concentrated in the group 16-20. Moreover, the highest respondents' distribution regarding the 'disagree' criteria is 50% related to the 6-10 group. On the other hand, regarding the 'agree' criteria, the highest respondents' distributions are 25% and 22.2% related to the groups less than 5 and 6-10 respectively. Furthermore, the highest respondents' distribution regarding the strongly 'agree' criteria are 23.7% related to the groups 16-20 and over 26 respectively.

Table 7. 38: Cross-tabulation of the Shortfall in the Value of Collateral with the Respondent's Experience

			Some types of guarantees are subjected to the shortfall in their value with the passage of time, and hence fails to meet the value of the credit (GSV)				
			Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	0	2	7	7	16
		% within Experience	.0%	12.5%	43.8%	43.8%	100%
		% within GSV	.0%	22.2%	16.7%	20.0%	18.0%
	6-10	Count	2	2	9	6	19
		% within Experience	10.5%	10.5%	47.4%	31.6%	100%
		% within GSV	66.7%	22.2%	21.4%	17.1%	21.3%
	11-15	Count	0	2	4	3	9
		% within Experience	.0%	22.2%	44.4%	33.3%	100%
		% within GSV	.0%	22.2%	9.5%	8.6%	10.1%
	16-20	Count	1	1	6	9	17
		% within Experience	5.9%	5.9%	35.3%	52.9%	100%
		% within GSV	33.3%	11.1%	14.3%	25.7%	19.1%
	21-25	Count	0	2	7	3	12
		% within Experience	.0%	16.7%	58.3%	25.0%	100%
		% within GSV	.0%	22.2%	16.7%	8.6%	13.5%
	Over 26	Count	0	0	9	7	16
		% within Experience	.0%	.0%	56.3%	43.8%	100%
		% within GSV	.0%	.0%	21.4%	20.0%	18.0%
Total		Count	3	9	42	35	89
		% within Experience	3.4%	10.1%	47.2%	39.3%	100%
		% within GSV	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.935(a)	15	.684
Likelihood Ratio	13.905	15	.533
Linear-by-Linear Association	.678	1	.410
N of Valid Cases	89		

a. 15 cells (62.5%) have expected count less than 5. The minimum expected count is .30.

Table 7.38 shows the cross-tabulation between the experiences of staff members and whether there are some types of guarantees subjected to the shortfall in their value with the passage of time. The Chi-square test produced a value of 0.684, much higher than the significance level 0.05; hence there is no statistically significant relationship between the two variables. On the other hand, most of the respondent's (86.5% in total) 'agree' and 'strongly agree' that some of the collateral provided by the borrowers had been exposed to the shortfall in their values. As evidenced, it can be noted that most of the respondents in each of the experience groups have similar views regarding the non-performing loans which are emerged in the Libyan state-owned commercial banks due to the fail are to meet the value of some types of credits, which are relevant with the shortfall in the value of some collateral. Since seniority or the experience does not determine the answers given to the mentioned statement, the statistical test yield insignificant result, which implies that seniority, does not have statistical impact.

To support this result, the vertical distribution of the each answer category can be examined. As can be seen that the highest respondents' distribution regarding the 'disagree' criteria are 66.7% and 33.3%, which relates to the groups 6-10 years and 16-20 year, respectively. On the other hand, regarding the 'agree' criteria, the highest respondents' distribution is 21.4% relates to each of the groups 6-10 and over 26. Furthermore, 25.7% is the highest percentage of the respondents' distribution, which relates to the group 16-20.

Table 7. 39: Cross-tabulation of Using Same Collateral in More than one Loan with the Respondent's Experience

			The use of the same collateral to obtain more than one loan (UCM)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	1	2	5	5	3	16
		% within Experience	6.3%	12.5%	31.3%	31.3%	18.8%	100%
		% within UCM	25.0%	10.0%	27.8%	14.3%	25.0%	18.0%
	6-10	Count	2	3	4	9	1	19
		% within Experience	10.5%	15.8%	21.1%	47.4%	5.3%	100%
		% within UCM	50.0%	15.0%	22.2%	25.7%	8.3%	21.3%
	11-15	Count	0	3	1	5	0	9
		% within Experience	.0%	33.3%	11.1%	55.6%	.0%	100%
		% within UCM	.0%	15.0%	5.6%	14.3%	.0%	10.1%
	16-20	Count	0	2	2	8	5	17
		% within Experience	.0%	11.8%	11.8%	47.1%	29.4%	100%
		% within UCM	.0%	10.0%	11.1%	22.9%	41.7%	19.1%
	21-25	Count	0	0	4	5	3	12
		% within Experience	.0%	.0%	33.3%	41.7%	25.0%	100%
		% within UCM	.0%	.0%	22.2%	14.3%	25.0%	13.5%
	Over 26	Count	1	10	2	3	0	16
		% within Experience	6.3%	62.5%	12.5%	18.8%	.0%	100%
		% within UCM	25.0%	50.0%	11.1%	8.6%	.0%	18.0%
Total		Count	4	20	18	35	12	89
		% within Experience	4.5%	22.5%	20.2%	39.3%	13.5%	100%
		% within UCM	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	35.636(a)	20	.017
Likelihood Ratio	38.987	20	.007
Linear-by-Linear Association	1.208	1	.272
N of Valid Cases	89		

a. 26 cells (86.7%) have expected count less than 5. The minimum expected count is .40.

Table 7.39 shows the correlation between the respondents' experiences and whether the clients of the Libyan state-owned commercial banks are using the same collateral for more than one loan. As can be seen the Chi-square level is 0.017, smaller than statistically significant level 0.05, which implies that there is statistically significant relationship between the two variables, which lead us to reject the null hypothesis that the two variables are independent. On one hand, it can be seen that the majority of the experience group 'agree' and 'strongly agree' that the clients of the Libyan state-owned commercial banks had used the same collateral to obtain more than one loan. On the other hand, it can be observed that a total of 68.8% of the respondents in the sixth experience group (over 26 years) 'strongly disagree' and 'disagree' that the clients of the Libyan state-owned commercial banks had used the same guarantee to obtain other loans. Ultimately, because of the interrelation between the staff responses relating to different experience groups, it can be noted that the total of nearly 53% of the respondents 'agree' and 'strongly agree' that non-performing loans emerged in the Libyan state-owned commercial banks due to the use of the same collateral for more than one loan. Thus, there is a particular pattern in responding to this statement by various experience groups, and therefore it can be concluded that experience is an important factor in explaining the collateral reasons of non-performing loans through clients using the same collateral in getting more than one loan.

In supporting this, regarding the 'strongly disagree' and 'disagree' criteria, it can be seen that the highest respondents' distribution are among the groups 6-10 for 'strongly disagree' and over 26 for 'disagree' at 50% for each group. On the other hand, the highest respondents' distribution, regarding the 'agree' criteria is 25.7% and 22.9% related to the groups 6-10 and 16-20 respectively. Also, in terms of the 'strongly agree' criteria, it can be noted that 41.7% of the respondents are concentrated in the group 16-20, which is the highest.

Table 7. 40: Cross-tabulation of Disposition in the Collateral by the Borrower with the Respondent's Experience

			The disposition of the borrower in total or partial value of the collateral before the repayment of the loan value (DBC)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	2	5	3	4	2	16
		% within Experience	12.5%	31.3%	18.8%	25.0%	12.5%	100%
		% within DBC	25.0%	17.2%	16.7%	16.7%	20.0%	18.0%
	6-10	Count	3	5	4	6	1	19
		% within Experience	15.8%	26.3%	21.1%	31.6%	5.3%	100%
		% within DBC	37.5%	17.2%	22.2%	25.0%	10.0%	21.3%
	11-15	Count	0	3	2	4	0	9
		% within Experience	.0%	33.3%	22.2%	44.4%	.0%	100%
		% within DBC	.0%	10.3%	11.1%	16.7%	.0%	10.1%
	16-20	Count	1	3	4	4	5	17
		% within Experience	5.9%	17.6%	23.5%	23.5%	29.4%	100%
		% within DBC	12.5%	10.3%	22.2%	16.7%	50.0%	19.1%
	21-25	Count	1	3	2	4	2	12
		% within Experience	8.3%	25.0%	16.7%	33.3%	16.7%	100%
		% within DBC	12.5%	10.3%	11.1%	16.7%	20.0%	13.5%
	Over 26	Count	1	10	3	2	0	16
		% within Experience	6.3%	62.5%	18.8%	12.5%	.0%	100%
		% within DBC	12.5%	34.5%	16.7%	8.3%	.0%	18.0%
Total		Count	8	29	18	24	10	89
		% within Experience	9.0%	32.6%	20.2%	27.0%	11.2%	100%
		% within DBC	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.000(a)	20	.458
Likelihood Ratio	21.464	20	.370
Linear-by-Linear Association	.234	1	.629
N of Valid Cases	89		

a. 25 cells (83.3%) have expected count less than 5. The minimum expected count is .81.

Table 7.40 shows the cross-tabulation between the respondent's experience and whether the clients of the Libyan state-owned commercial banks have been acted in total or partial in the guarantees value before the repayment of the loans value. It can be seen that the Chi-square level is 0.458 which is higher than the customary level 0.05. It can, therefore, be said that there is no statistically significant relationship between the two variables.

As a result, the respondents have different views within each experience group such as, less than 5 years and 6-10 years 'strongly disagree' and 'disagree' at a total of

43.8% and 42.1% respectively. Also, the experience group 11-15 years 'agree' at 44.4%, the experience group16-20 years 'agree' and 'strongly agree' at a total of 52.9% and the experience group 21-25 years 'agree' and 'strongly agree' at total of 50%. Also, the group over 26 years is 'strongly disagree' and 'disagree' at a total of 68.8%. Finally, it can be concluded that there was no consensus among the respondents answers (41.6% as the total of the respondents who strongly disagree and disagree and 38.2% as agree and strongly agree) on whether the non-performing loans emerged due to the disposition of the value of collateral by borrowers before repayment of their obligations. Hence seniority or experience cannot explain the variation in the answers given to the statement that whether the clients of the Libyan state-owned commercial banks have been acted in total or partial in the guarantees value before the repayment of the loans value.

This result can also be seen from the vertical distribution of each of the answer categories as well. For instance, it can be seen that 37.5% and 25% of the respondents are distributed among the groups 6-10 years and less than 5 years, respectively regarding the 'strongly disagree' criteria. Furthermore, the highest percentage of the respondents' distribution regarding the 'disagree' criteria is 34.5%, which relates to the over 26 group. On the other hand, in terms of the 'agree' criteria, 25% is the highest percentage of the respondents is distributed in the group 6-10 years. Also, it can be noted that 50% of the respondents are concentrated in the group 16-20 regarding the 'strongly agree' criteria.

7.4. BORROWER-RELATED REASONS

In a lending contract, the responsibility of the borrowers is to repay their obligations in the form of loans and credit facilities to the lenders in the fixed time in accordance with the terms agreed upon in advance (Kolb and Rodriguez, 1996). As discussed in Chapter 2 the borrower's related issues are considered as one of the most important reasons leading to the emergence of non-performing loans. The following section presents the reasons related to the borrowers, which are considered as causing non-performing loans in the Libyan state-owned commercial banks.

7.4.1. Descriptive Analysis

The initial analysis commences with the analysis of the responses on the perceptions of participants on the statement that provision of incorrect information by borrowers on the project for which credit is sought for could be considered as one of the borrower reasons of non-performing loans, which is depicted in table 7.41.

Table 7. 41: Provision of Incorrect Information by the Borrower on the Project which will be financed by Loans (Moral Hazard)

			Frequency	Percent
Valid	1	Strongly Disagree	3	3.4
	2	Disagree	7	7.9
	3	Neutral	8	9.0
	4	Agree	48	53.9
	5	Strongly Agree	23	25.8
		Total	89	100.0
Mean		3.9101		

Table 7.41 shows that 53.9% of the respondents 'agree' that the clients of the Libyan state-owned commercial banks provide incorrect information on their projects financed by credits. Also, 25.8% of the respondents 'strongly agree' that there was a moral hazard related to the information, which had been submitted by the borrowers. This table shows also that 79.7% of respondents 'agree' that this reason led to non-performing loans in the Libyan state-owned commercial banks. This result is evidenced by the mean value of 4 which corresponds to the 'agree' group.

The next section explores participants views on whether the low level of administrative, financial and technical experience of borrower to manage funds borrowed could be considered as one of the reasons of non-performing loans, the results are depicted in table 7.42.

Table 7. 42: The Low Level of Administrative, Financial and Technical Experience of the Borrower to Manage Funds Borrowed

			Frequency	Percent
Valid	1	Strongly Disagree	2	2.2
	2	Disagree	1	1.1
	3	Neutral	4	4.5
	4	Agree	47	52.8
	5	Strongly Agree	35	39.3
		Total	89	100.0
Mean		4.2584		

It can be seen from table 7.42 that 52.8% of the respondents 'agree' that there was low-level experience of borrower related to administrative, financial and technical skills to manage the funds borrowed. Also, it can be noted that 39.3% of the respondents 'strongly agree' with the statement. Accordingly, it can be said that 92.1% is the total of the respondents 'agree' that this reason has led to the emergence of non-performing loans in the Libyan state-owned commercial banks. This result is further substantiated by the mean value of 4 which reflects the 'agree' group. Therefore, it can be said that this reason is ranked as the most important factors among the reasons leading to non-performing loans related to the borrower.

As discussed in chapter 2, financial feasibility studies are one of the requirements for granting loans. Thus, unprofessional financial feasibility studies submitted by the borrower can be considered among the causes of non-performing loans, which was explored with the respondents and the results of which presented in table 7.43.

Table 7. 43: The Low Level of Financial Feasibility Studies Submitted by the Borrower

			Frequency	Percent
Valid	1	Strongly Disagree	1	1.1
	2	Disagree	1	1.1
	3	Neutral	8	9.0
	4	Agree	42	47.2
	5	Strongly Agree	37	41.6
		Total	89	100.0
Mean		4.2697		

Table 7.43 shows that 47.2% of the respondents 'agree' that there was a low level of financial feasibility studies submitted to the Libyan state-owned commercial banks. Also, it can be seen that 41.6% of the respondents 'strongly agree' with the issue in the above table. As a result, it can be said that 88.8% of the respondents 'agreed' that the unprofessional and unqualified financial feasibility studies is considered as one of the reasons that lead to non-performing loans in the Libyan state-owned commercial banks. This result is further substantiated by the mean value of 4.3 which correspondents to the 'agree' group.

An important reason of non-performing loan could be the use of the loan for other purposes than for which it was borrowed. This borrower related reason was also explored with the participants and the results of the analysis are presented in table 7.44.

Table 7. 44: Using the Loan for other Purposes

			Frequency	Percent
Valid	1	Strongly Disagree	3	3.4
	2	Disagree	1	1.1
	3	Neutral	12	13.5
	4	Agree	32	36.0
	5	Strongly Agree	41	46.1
		Total	89	100.0
Mean		4.2022		

Table 7.44 shows that 36% of the respondents 'agree' and 46.1% of the respondents 'strongly agree' (combined total 82.1%) that the Libyan state-owned commercial banks' loans were used for other purposes, which leads to non-performing loans. This result is evidenced by the mean value of 4.2 which corresponds to the 'agree' group.

As part of best bank practices, in giving loans banks should take into account all the risks. For example, bankruptcy of the client is one of such risks. In particular if there is no sufficient guarantee for the recovery of the value of the loan granted, the non-performing loans become an issue. This was also explored with the participants and the results are presented in table 7.45.

Table 7. 45: A Declaration of Client Bankruptcy and the Absence of Sufficient Guarantees for the Recovery of the Value of the Loan Granted

			Frequency	Percent
Valid	1	Strongly Disagree	2	2.2
	2	Disagree	9	10.1
	3	Neutral	15	16.9
	4	Agree	45	50.6
	5	Strongly Agree	18	20.2
		Total	89	100.0
Mean		3.7640		

As can be seen from table 7.45, 50.6% of the respondents 'agree' that the emergence of non-performing loans in the Libyan state-owned commercial banks is attributable to the bankruptcy of some clients. Also, it can be noted that 20.2% of the respondents 'strongly agree' with the issue in the above table. Hence, 70.8% is the total of the respondents who 'agree' with the fact that the declaration of bankruptcy by some clients in the absence of sufficient guarantees led to non-performing loans in the

Libyan state-owned commercial banks. This result is supported by the mean value of 4 which falls into an interval close to 'agree' group.

As part of the borrower related reasons, the next section questioned the perceptions of the participants and whether they thought in the event of client's death and failure of the heirs to repay the obligation could be considered as an important reason of non-performing loans. The results are depicted in table 7.46.

Table 7. 46: In the Event of the Client's Death and the Failure of the Heirs to Repay his/her Obligations

			Frequency	Percent
Valid	1	Strongly Disagree	1	1.1
	2	Disagree	8	9.0
	3	Neutral	14	15.7
	4	Agree	48	53.9
	5	Strongly Agree	18	20.2
		Total	89	100.0
Mean		3.8315		

Table 7.46 shows that 53.9% of the respondents 'agree' those non-performing loans are also contributed by clients' death and the heirs failed to repay their obligations. It can also be seen that 20.2% of the respondents 'strongly agree' on this issue. Thus, 74.1% of the respondents agreed that the Libyan state-owned commercial banks faced non-performing loans due also to the failure of those banks to collect their funds from the heirs. This result is evidenced by the approximate mean value of 4 which relates to the 'agree' group.

In summing, this section presented the analysis related to the borrower issues as the reasons of non-performing loans in Libyan state owned commercial banking system. A total of six factors related to borrowers are explored. Table 7.47 provides a summary of this section by providing the mean ranking of each factor analysed above so that the most important factor can be located.

Table 7. 47: Mean Ranking of the Borrower-related Reasons, which Caused Non-Performing Loans

	Reasons	Mean ranking
1	The low level of financial feasibility studies submitted by the borrower.	4.2697
2	The low level of administrative, financial and technical experience of the borrower to manage funds borrowed.	4.2584
3	Using the loan for other purposes.	4.2022
4	Provision of incorrect information by the borrower on the project which will be financed by loans (moral hazard).	3.9101
5	In the event of the client's death and the failure of the heirs to repay his/her obligations.	3.8315
6	A declaration of client bankruptcy and the absence of sufficient guarantees for the recovery of the value of loan granted.	3.7640

Table 7.47 has been designed in order to present the mean ranking regarding the borrower-related reasons, which led to the emergence of non-performing loans in the Libyan state-owned commercial banks. As the table shows, the respondents' views have been listed according to mean ranking starting from the highest to the lowest. For example, the variable of the low level of financial feasibility studies submitted by the borrower is considered as the highest factor related to borrower causing non-performing loans by the mean rank 4.2697. Moreover, the lowest mean rank is 3.7640, which relates to the variable of a declaration of client bankruptcy and the absence of sufficient guarantees for the recovery of the value of loan granted regarding the 'agree' criteria. Thus, the results indicate that procedural issues are considered as most important borrower related reasons.

7.4.2. Factor Analysis

In order to substantiate the results of the preceding section, the following section takes the analysis a step further to provide more systematic evidence through factor analysis by locating the most important reasons among the identified six factors. The initial result of KMO and Bartlett's test is presented in table 7.48.

Table 7. 48: KMO and Bartlett's Test on the Borrower-related Reasons Causing Non-Performing Loans in the Libyan State-owned Commercial Banks

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.685
Bartlett's Test of Sphericity	Approx. Chi-Square	191.039
	Df	15
	Sig.	.000

As can be seen from table 7.48, the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy borrower-related reasons that led to non-performing loans in the Libyan state-owned commercial banks produced a significant result because it records a value of approximately .7 (rounded) which is greater than the benchmark value of 0.6. This implies that the reasons identified in this section can be subject to factor analysis. In addition, the Bartlett's test of Sphericity recorded statistical significance (0.000), which is supporting the factorability of the correlation matrix. Therefore, according to this result it can be said that the factor analysis is appropriate for this study, which is presented in table 7.49.

Table 7. 49: Total Variance Explained of Borrower-related Reasons Causing Non-Performing Loans in the Libyan State-owned Commercial Banks

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.919	48.653	48.653	2.498	41.638	41.638	1.982	33.036	33.036
2	1.287	21.446	70.099	.967	16.122	57.760	1.483	24.724	57.760
3	.779	12.988	83.087						
4	.409	6.822	89.910						
5	.358	5.967	95.877						
6	.247	4.123	100.000						

Extraction Method: Principal Axis Factoring.

Table 7.49 shows that there are six items or factors which can be simply reduced to two factors. Thus, it has extracted those factors because of the Eigenvalue which is greater than 1.0. On the other hand, the total initial Eigenvalue of the acceptable factors are; 3.0 related to the first factor and 1.3 related to the second factor. As a result, 33.03% of the variance is explained by the first factor and 25% of it is explained by the second factor. Therefore, these two factors together explain 58% of total variation.

Figure 7. 2: Scree Plot

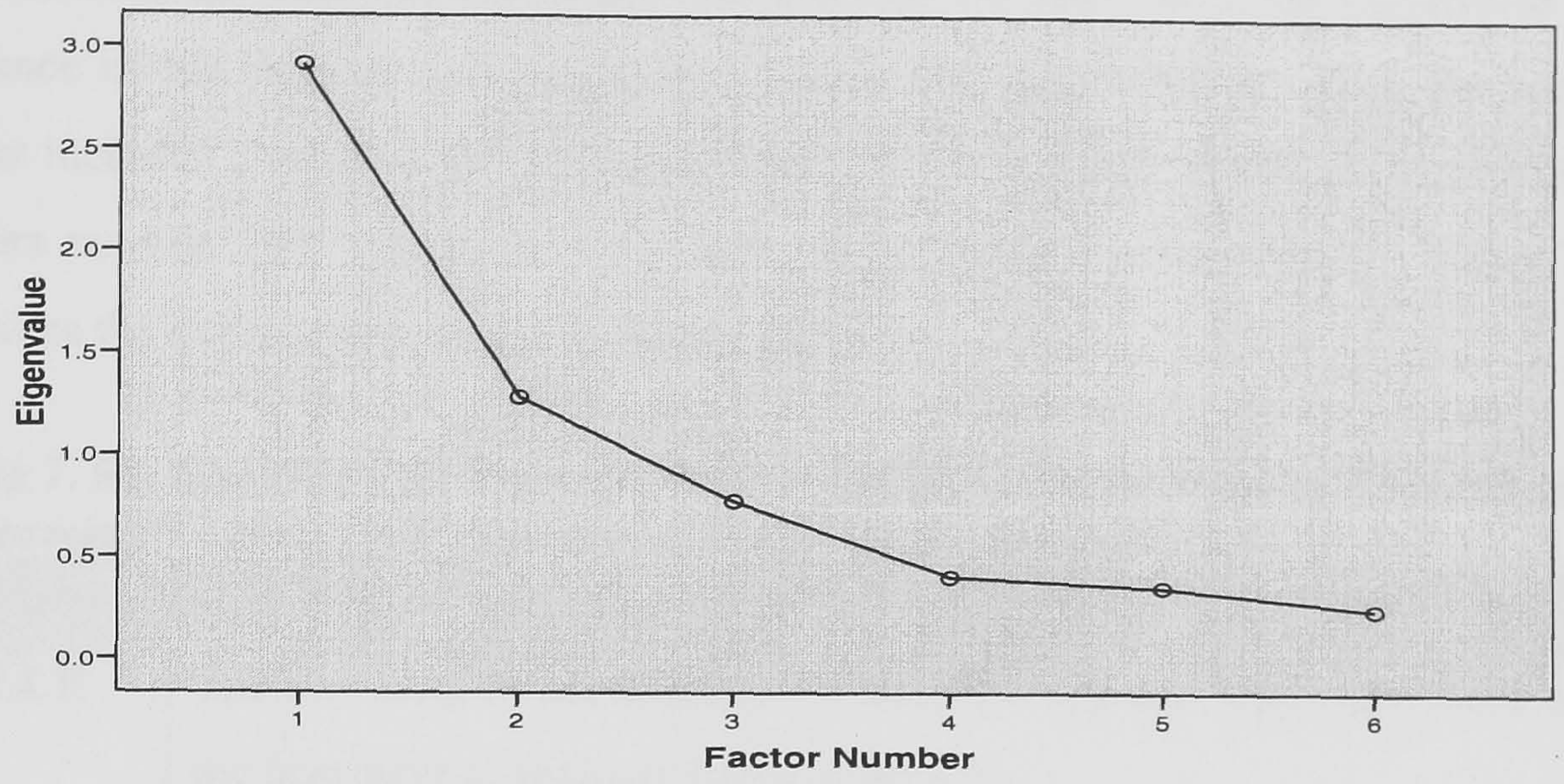


Figure 7.2 present the scree plot, which slopes steeply downwards from the first factor to the third factor. Also, it can be seen that the plot slopes slowly towards the horizontal line from the third factor. As a result, scree plot provides further evidence that the first and second factors are considered as the most significant factors. Based upon the results so far, table 7.50 presents the results of the rotate factor matrix of the six identified factor related to borrowers.

Table 7. 50: Rotated Factor Matrix (a) on Borrower-related Reasons causing Non-performing Loans in the Libyan State-owned Commercial Banks

Variable	Factor		Communality of Each Variable
	1	2	
LLE	**.839**		.434
ULOP	**.708**		.709
PII	**.595**		.363
LLFS	**.584**		.523
ECD		**.856**	.692
DCB		**.788**	.744
Eigenvalue	2.919	1.287	
% of Variance	33.036	24.724	
Cumulative %	33.036	57.760	

Extraction Method: Principal Axis Factoring.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

Table 7.50 depicts two factors and six variables. The Eigenvalue and variance of the first factor records 3 and 33.03% respectively. Also, it can be seen that this factor includes 4 items with loadings from .6 to .84. On the other hand, the Eigenvalue and variance of the second factor records 1.3 and 25% respectively. Also, the second factor includes 2 items with loadings .8 and .85. As a result, the total of cumulative factors records 58% which, as a variance, is explained by two factors. Table 7.51 provides the explanation of acronyms in table 7.50.

Table 7. 51: The Variable Definitions of Borrower-related Reasons Causing Non-performing Loans in the Libyan State-owned commercial Banks

Variables	Definition
LLE	The low level of administrative, financial and technical experience of the borrower to manage funds borrowed.
ULOP	Using the loan for other purposes.
PII	Provision of incorrect information by the borrower on the project which will be financed by loans (moral hazard).
LLFS	The low level of financial feasibility studies submitted by the borrower.
ECD	In the event of the client's death and the failure of the heirs to repay his/her obligations.
DCB	A declaration of client bankruptcy and the absence of sufficient guarantees for the recovery of the value of loan granted.

7.4.3. Cross-tabulation

The analysis in this section of factor relating to borrowers further expanded through cross-tabulation analysis. As in the previous sections and with the same rationale each of the six identified factor in this section is cross-tabulated with a control variable, namely experience. As before, it is expected the seniority and age gap between the participants may explain some of the variance identified in the mean values or in the responses provided. In other words, it is hypothesised that experience or seniority has (or does not has) impact on responses of the participants on the given factors or statements. Thus, the following section provides the detailed result of cross-tabulation analysis. In addition, as mentioned before, in addition to horizontal analysis of locating the distribution of answers for each category also vertical analysis is provided to see how each answer category is distributed among the experience groups.

Table 7.52 shows the relationship between the respondent's experience and whether non-performing loans in the Libyan state-owned commercial banks had emerged as a result of incorrect information provided by the borrowers in order to obtain loans.

Table 7. 52: Cross-tabulation of Provision of Incorrect Information on the Project with the Respondent's Experience

			Provision of incorrect information by the borrower on the project which will be financed by loans (moral hazard) (PII)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	0	3	3	7	3	16
		% within Experience	.0%	18.8%	18.8%	43.8%	18.8%	100%
		% within PII	.0%	42.9%	37.5%	14.6%	13.0%	18.0%
	6-10	Count	2	1	2	12	2	19
		% within Experience	10.5%	5.3%	10.5%	63.2%	10.5%	100%
		% within PII	66.7%	14.3%	25.0%	25.0%	8.7%	21.3%
	11-15	Count	0	0	1	4	4	9
		% within Experience	.0%	.0%	11.1%	44.4%	44.4%	100%
		% within PII	.0%	.0%	12.5%	8.3%	17.4%	10.1%
	16-20	Count	0	0	1	11	5	17
		% within Experience	.0%	.0%	5.9%	64.7%	29.4%	100%
		% within PII	.0%	.0%	12.5%	22.9%	21.7%	19.1%
	21-25	Count	1	2	1	5	3	12
		% within Experience	8.3%	16.7%	8.3%	41.7%	25.0%	100%
		% within PII	33.3%	28.6%	12.5%	10.4%	13.0%	13.5%
	Over 26	Count	0	1	0	9	6	16
		% within Experience	.0%	6.3%	.0%	56.3%	37.5%	100%
		% within PII	.0%	14.3%	.0%	18.8%	26.1%	18.0%
Total		Count	3	7	8	48	23	89
		% within Experience	3.4%	7.9%	9.0%	53.9%	25.8%	100%
		% within PII	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.633(a)	20	.419
Likelihood Ratio	23.664	20	.257
Linear-by-Linear Association	3.238	1	.072
N of Valid Cases	89		

a. 25 cells (83.3%) have expected count less than 5. The minimum expected count is .30.

As can be seen in table 7.52, Chi-square test produced 0.419, which is higher than the statistically significant level of 0.05. It can, therefore, be concluded that there is no statistically significant relationship between the two variables. As the results demonstrate most of the respondents in each experience group have similar views that the clients of the Libyan state-owned commercial banks submitted false information on their projects that have been financed by loans. Furthermore, it can be concluded that a total of 79.7% of the respondents 'agree' and 'strongly agree' that non-performing loans emerged in the Libyan state-owned commercial banks due to incorrect information submitted by the borrowers in order to obtain loans. Thus, not having variation in the answers given to the statement evidences as to why there is no statistically significant result.

As to the vertical distribution of answer criteria to the experience classes, for instance in the case of 'strongly disagree' criteria, it can be seen that the respondents are concentrated in just two groups, which are 6-10 years and 21-25 year at the percentages of 66.7% and 33.3% respectively. Furthermore, 42.9% and 28.6%, which relates to the groups less than 5 years and 21-25 year, respectively are the highest percentage of respondents, distribution regarding the 'disagree' criteria. On the other hand, the highest percentage of the respondents' distribution regarding the 'agree' criteria is 25% related to the group 6-10. Moreover, 26.1% is the highest percentage related to the group over 26 year regarding the 'strongly agree' criteria.

Table 7. 53: Cross-tabulation of Low Level of the Borrower Experience with the Respondent's Experience

			The low level of administrative, financial and technical experience of the borrower to manage of funds borrowed (LLE)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	0	0	3	6	7	16
		% within Experience	.0%	.0%	18.8%	37.5%	43.8%	100%
		% within LLE	.0%	.0%	75.0%	12.8%	20.0%	18.0%
	6-10	Count	1	0	1	10	7	19
		% within Experience	5.3%	.0%	5.3%	52.6%	36.8%	100%
		% within LLE	50.0%	.0%	25.0%	21.3%	20.0%	21.3%
	11-15	Count	0	0	0	4	5	9
		% within Experience	.0%	.0%	.0%	44.4%	55.6%	100%
		% within LLE	.0%	.0%	.0%	8.5%	14.3%	10.1%
	16-20	Count	0	1	0	7	9	17
		% within Experience	.0%	5.9%	.0%	41.2%	52.9%	100%
		% within LLE	.0%	100.0%	.0%	14.9%	25.7%	19.1%
	21-25	Count	1	0	0	8	3	12
		% within Experience	8.3%	.0%	.0%	66.7%	25.0%	100%
		% within LLE	50.0%	.0%	.0%	17.0%	8.6%	13.5%
	Over 26	Count	0	0	0	12	4	16
		% within Experience	.0%	.0%	.0%	75.0%	25.0%	100%
		% within LLE	.0%	.0%	.0%	25.5%	11.4%	18.0%
Total		Count	2	1	4	47	35	89
		% within Experience	2.2%	1.1%	4.5%	52.8%	39.3%	100%
		% within LLE	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	24.141(a)	20	.236
Likelihood Ratio	22.673	20	.305
Linear-by-Linear Association	.019	1	.890
N of Valid Cases	89		

a. 21 cells (70.0%) have expected count less than 5. The minimum expected count is .10.

The result of cross-tabulation of the respondent's experience and whether the non-performing loans that emerged in the Libyan state-owned commercial banks are due to the low level of administrative, financial and technical experience of the borrowers is depicted in table 7.53. The Chi-square result is 0.236, which is higher than the statistically significant level of 0.05. It can, therefore, be concluded that there is no statistically significant relationship between the two variables. As to the results relevant to staff experience, most of the respondents in each experience group have similar views that the Libyan state-owned commercial banking sector granted loans to borrowers who have low-level administrative, financial and technical experience.

This is supported by the percentages of the experience groups 11-15 years and over 26 years at 100% respectively, the 16-20 years group at 94.1%, the experience group 21-25 years at 91.7%, the experience group 6-10 years at 89.4% and the experience group less than 5 years at 81.3%. Therefore, it can be noted that a total of 92.1% of the respondents 'agree' and 'strongly agree' that non-performing loans emerged in the Libyan state-owned commercial banks due to the reasons mentioned in the previous table. This explains why the hypothesis aiming to measure the significance of variances in responses is not significant.

In addition, it can be seen that the respondents are equally concentrated in the groups 6-10 and 21-25 regarding the 'strongly disagree' criteria at 50% for each group. Also, 100% of the respondents concentrated in the group 16-20 disagree. On the other hand, the highest percentage of respondents' who agree is 25.5% among the group over 26 year. Furthermore, regarding the 'strongly agree' criteria the highest percentage is 25.7% related to the group 16-20.

Table 7. 54: Cross-tabulation of Low Level of Financial Feasibility Studies with the Respondent's Experience

			The low level of financial feasibility studies submitted by the borrower (LLFS)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	0	0	5	4	7	16
		% within Experience	.0%	.0%	31.3%	25.0%	43.8%	100%
		% within LLFS	.0%	.0%	62.5%	9.5%	18.9%	18.0%
	6-10	Count	0	1	0	11	7	19
		% within Experience	.0%	5.3%	.0%	57.9%	36.8%	100%
		% within LLFS	.0%	100.0%	.0%	26.2%	18.9%	21.3%
	11-15	Count	0	0	0	5	4	9
		% within Experience	.0%	.0%	.0%	55.6%	44.4%	100%
		% within LLFS	.0%	.0%	.0%	11.9%	10.8%	10.1%
	16-20	Count	1	0	1	6	9	17
		% within Experience	5.9%	.0%	5.9%	35.3%	52.9%	100%
		% within LLFS	100.0%	.0%	12.5%	14.3%	24.3%	19.1%
	21-25	Count	0	0	1	10	1	12
		% within Experience	.0%	.0%	8.3%	83.3%	8.3%	100%
		% within LLFS	.0%	.0%	12.5%	23.8%	2.7%	13.5%
	Over 26	Count	0	0	1	6	9	16
		% within Experience	.0%	.0%	6.3%	37.5%	56.3%	100%
		% within LLFS	.0%	.0%	12.5%	14.3%	24.3%	18.0%
Total		Count	1	1	8	42	37	89
		% within Experience	1.1%	1.1%	9.0%	47.2%	41.6%	100%
		% within LLFS	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.678(a)	20	.060
Likelihood Ratio	29.445	20	.079
Linear-by-Linear Association	.589	1	.443
N of Valid Cases	89		

a. 21 cells (70.0%) have expected count less than 5. The minimum expected count is .10.

Table 7.54 shows the cross-tabulation between the respondent's experience and whether the loan applicants have submitted a low-level or unqualified financial feasibility studies to obtain loans from the Libyan state-owned commercial banks. The result of Chi-square test shows 0.060, which is slightly higher than the statistically significant level of 0.05. But it could be accepted at the margin indicating a statistically significant result. As a result, it can be noted that majority of the respondents in each of the experience groups have similar views that the Libyan state-owned commercial banks have suffered by non-performing loans due to the financial feasibility studies submitted by the borrowers. Therefore, it can be concluded that 89% of the respondents 'agree' and 'strongly agree' that some of the financial feasibility studies provided by loan applicants had led to the emergence of non-performing loans in the Libyan state-owned commercial banks. It seems that on the margin the variation in responses can be explained by experience group in this particular case by expanding the confidence level.

Regarding the vertical distribution of the answers, for example in the case of 'strongly disagree' criteria, it can be seen that 100% of the respondents are concentrated among the group 16-20. Also, 100% of the respondents are concentrated in the group 6-10 regarding the 'disagree' criteria. On the other hand, the highest percentage of the respondents' distribution is 26.2% and 23.8% among the groups 6-10 and 21-25 regarding the 'agree' criteria. Furthermore, it can be noted that the highest percentage of the respondents who 'strongly agree' is 24.3% for each of the groups 16-20 and over 26.

Table 7. 55: Cross-tabulation of Using the Loan for other Purposes with the Respondent's Experience

			Using the loan for other purposes (ULOP)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	0	0	5	6	5	16
		% within Experience	.0%	.0%	31.3%	37.5%	31.3%	100%
		% within ULOP	.0%	.0%	41.7%	18.8%	12.2%	18.0%
	6-10	Count	2	0	2	7	8	19
		% within Experience	10.5%	.0%	10.5%	36.8%	42.1%	100%
		% within ULOP	66.7%	.0%	16.7%	21.9%	19.5%	21.3%
	11-15	Count	0	0	0	4	5	9
		% within Experience	.0%	.0%	.0%	44.4%	55.6%	100%
		% within ULOP	.0%	.0%	.0%	12.5%	12.2%	10.1%
	16-20	Count	0	1	0	5	11	17
		% within Experience	.0%	5.9%	.0%	29.4%	64.7%	100%
		% within ULOP	.0%	100.0%	.0%	15.6%	26.8%	19.1%
	21-25	Count	1	0	3	5	3	12
		% within Experience	8.3%	.0%	25.0%	41.7%	25.0%	100%
		% within ULOP	33.3%	.0%	25.0%	15.6%	7.3%	13.5%
	Over 26	Count	0	0	2	5	9	16
		% within Experience	.0%	.0%	12.5%	31.3%	56.3%	100%
		% within ULOP	.0%	.0%	16.7%	15.6%	22.0%	18.0%
Total		Count	3	1	12	32	41	89
		% within Experience	3.4%	1.1%	13.5%	36.0%	46.1%	100%
		% within ULOP	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.926(a)	20	.292
Likelihood Ratio	25.053	20	.199
Linear-by-Linear Association	1.057	1	.304
N of Valid Cases	89		

a. 21 cells (70.0%) have expected count less than 5. The minimum expected count is .10.

Table 7.55 shows the cross-tabulation between the respondent's experience and their opinions whether borrowers had used the loans granted by the Libyan state-owned commercial banking sector for other purposes. As the results show, the Chi-square result is 0.292, which indicates a non-significant result; hence, there is no statically significant correlation between the two variables, and we cannot reject the null hypothesis that the two variables are independent. Ultimately, it can be concluded that the majority of the respondents in each experience group have similar views regarding the emergence of non-performing loans in the Libyan state-owned commercial banks due to using the amounts of loans for other purposes. Moreover, it can be noted that a total of 82.1% of the respondents 'agree' and 'strongly agree' that the Libyan state-owned commercial banks are exposed by the non-performing loans because of the reason showed in the above table. Thus, not having variation in the answers explains non-significant Chi-square test.

In addition, in checking the vertical analysis of the answer categories in relation to experience group, it can be noted that the highest distribution of the respondents regarding the 'strongly disagree' criteria is 66.7% and 33.3%, which relate to the groups 6-10 and 21-25 respectively. Furthermore, regarding 'disagree' criteria, 100% of such respondents are concentrated in the group 16-20. On the other hand, the highest percentage of the respondents' distribution regarding the 'agree' criteria is 21.9%, which is related to the group 6-10. Moreover, it can be seen that the highest percentages of the respondents' distribution regarding the 'strongly agree' criteria are 26.8% and 22%, which are related to the groups 16-20 and over 26 respectively.

Table 7. 56: Cross-tabulation of the Absence of Sufficient Guarantees in the Event of Client Bankruptcy with the Respondent's Experience

			A declaration of the client bankruptcy and the absence of sufficient guarantees for the recovery of the value of loan granted (DCB)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	0	3	4	4	5	16
		% within Experience	.0%	18.8%	25.0%	25.0%	31.3%	100%
		% within DCB	.0%	33.3%	26.7%	8.9%	27.8%	18.0%
	6-10	Count	1	3	4	8	3	19
		% within Experience	5.3%	15.8%	21.1%	42.1%	15.8%	100%
		% within DCB	50.0%	33.3%	26.7%	17.8%	16.7%	21.3%
	11-15	Count	0	0	3	6	0	9
		% within Experience	.0%	.0%	33.3%	66.7%	.0%	100%
		% within DCB	.0%	.0%	20.0%	13.3%	.0%	10.1%
	16-20	Count	0	1	1	10	5	17
		% within Experience	.0%	5.9%	5.9%	58.8%	29.4%	100%
		% within DCB	.0%	11.1%	6.7%	22.2%	27.8%	19.1%
	21-25	Count	1	1	2	7	1	12
		% within Experience	8.3%	8.3%	16.7%	58.3%	8.3%	100%
		% within DCB	50.0%	11.1%	13.3%	15.6%	5.6%	13.5%
	Over 26	Count	0	1	1	10	4	16
		% within Experience	.0%	6.3%	6.3%	62.5%	25.0%	100%
		% within DCB	.0%	11.1%	6.7%	22.2%	22.2%	18.0%
Total		Count	2	9	15	45	18	89
		% within Experience	2.2%	10.1%	16.9%	50.6%	20.2%	100%
		% within DCB	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.199(a)	20	.446
Likelihood Ratio	23.716	20	.255
Linear-by-Linear Association	1.877	1	.171
N of Valid Cases	89		

a. 25 cells (83.3%) have expected count less than 5. The minimum expected count is .20.

Cross-tabulation between the respondent's experiences and the statement that whether there are some clients who have been exposed to bankruptcy with the absence of sufficient guarantees for the recovery of their loans obtained from the Libyan state-owned commercial banks are shown in table 7.56. As a result, the Chi-square test produced a value of 0.446, which is higher than the customary significance level of 0.05. Thus, there is no statistically significant relationship between the two variables, and we can not reject the null hypothesis that the two variables are independent. On the other hand, it can be seen that the majority of the respondents in each experience group have similar views regarding the emergence of non-performing loans due to the bankruptcy of some borrowers. Also, it can be concluded that 70.8% of the respondents agree and strongly agree that the Libyan state-owned commercial banks had been exposed to non-performing loans because of the reason mentioned above. This general pattern explains as to why null hypothesis should be accepted.

Regarding vertical analysis of distribution of answer criteria among the experience classes, the criteria of 'strongly disagree', it can be seen that the respondents are equally concentrated in the groups 6-10 and 21-25 at 50% for each group. In addition, the highest respondents' distribution regarding the 'disagree' criteria is 33.3% for each of the groups less than 5 and 6-10. On the other hand, regarding the 'agree' criteria, the highest percentage of the respondents' distribution is 22.2%, respectively, for the groups 16-20 and over 26. Furthermore, regarding to the 'strongly agree' criteria, the highest percentage is 27.8% for each of the groups less than 5 and 16-20.

Table 7. 57: Cross-tabulation of the Heirs' Failure to Repay the Clients Obligations with the Respondent's Experience

			In the event of the client's death and the failure of the heirs to repay his/her obligations (ECD)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	0	3	3	6	4	16
		% within Experience	.0%	18.8%	18.8%	37.5%	25.0%	100%
		% within ECD	.0%	37.5%	21.4%	12.5%	22.2%	18.0%
	6-10	Count	1	2	3	8	5	19
		% within Experience	5.3%	10.5%	15.8%	42.1%	26.3%	100%
		% within ECD	100.0%	25.0%	21.4%	16.7%	27.8%	21.3%
	11-15	Count	0	1	2	4	2	9
		% within Experience	.0%	11.1%	22.2%	44.4%	22.2%	100%
		% within ECD	.0%	12.5%	14.3%	8.3%	11.1%	10.1%
	16-20	Count	0	0	2	13	2	17
		% within Experience	.0%	.0%	11.8%	76.5%	11.8%	100%
		% within ECD	.0%	.0%	14.3%	27.1%	11.1%	19.1%
	21-25	Count	0	1	3	7	1	12
		% within Experience	.0%	8.3%	25.0%	58.3%	8.3%	100%
		% within ECD	.0%	12.5%	21.4%	14.6%	5.6%	13.5%
	Over 26	Count	0	1	1	10	4	16
		% within Experience	.0%	6.3%	6.3%	62.5%	25.0%	100%
		% within ECD	.0%	12.5%	7.1%	20.8%	22.2%	18.0%
Total		Count	1	8	14	48	18	89
		% within Experience	1.1%	9.0%	15.7%	53.9%	20.2%	100%
		% within ECD	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.690(a)	20	.794
Likelihood Ratio	15.623	20	.740
Linear-by-Linear Association	1.219	1	.270
N of Valid Cases	89		

a. 25 cells (83.3%) have expected count less than 5. The minimum expected count is .10.

Table 7.57 shows the cross-tabulation between the respondent's experience and whether non-performing loans had emerged in the Libyan state-owned commercial banks as a result of the client's death and the failure of the heirs to repay his/her obligations. As can be seen there is no statistically significant correlation between the variables because of the Chi-square level of 0.794 being higher than the significance level of 0.05. It can be concluded that a total of 74.1% of the respondents 'agree' and 'strongly agree' that in some cases the heirs are unable to pay the loans value. On the other hand, most of the respondents in each experience group have similar views that the Libyan state-owned commercial banks had been exposed to non-performing loans because of the reason mentioned in the above table. Since there is not much variation in the views of the participant, the Chi-Square result is insignificant.

As to the vertical distribution of answer categories to experience categories, for instance in the case of the 'strongly disagree' criteria, it can be seen that 100% of the respondents are concentrated in the group 6-10. Furthermore, the highest respondents' distribution are related to 'disagree' criteria are among the groups less than 5 years and 6-10 years at 37.55 and 25% respectively. On the other hand, it can be noted that the highest respondents regarding the 'agree' criteria is 27.1%, which relates to the group 21-25. Moreover, the highest percentage of the respondents who 'strongly agree' is 27.8% related to the group 6-10 and 22.2% for each of the groups less than 5 and over 26.

7.5. GENERAL ENVIRONMENT-RELATED REASONS

Among the factors leading to non-performing loans, Chapter 2 discussed that the general environment is considered as one of the reasons, which lead to the emergence of non-performing loans. General environment consists of local conditions (internal factors) and international conditions (external factors). Therefore, this research attempts to measure the perceptions of the participants on general environment related reasons leading to non-performing loans in the Libyan state-owned commercial banking sector. Accordingly, the subsequent section provides the analysis of the respondents' answers on the impact of general environment on the emergence of non-performing loans in the Libyan state-owned commercial banks.

7.5.1. Local Conditions (Internal Factors)

Generally, the internal factors mean those factors generated within the economic and political policies of the state. Thus, the proceeding section provides the results of the analysis related to internal or the local conditions which might have caused non-performing loans in the Libyan state-owned commercial banks according to the opinions of the participants.

7.5.1.1. Descriptive analysis

The analysis related to the local or internal factors commences with the analysis of the participants whether changes in the monetary policy of the state could be considered as one of the reasons of non-performing loans.

Table 7. 58: The Changes in the Monetary Policy of the State

			Frequency	Percent
Valid	1	Strongly Disagree	7	7.9
	2	Disagree	5	5.6
	3	Neutral	21	23.6
	4	Agree	51	57.3
	5	Strongly Agree	5	5.6
		Total	89	100.0
Mean		3.4719		

Table 7.58 shows that 57.3% of the respondents agree that changes in the Libyan monetary policy indeed led to the emergence of non-performing loans in the Libyan state-owned commercial banks. It can also be noted that 23.6% of the respondents were neutral that those changes had led to non-performing loans. Accordingly, it can be said that the respondents' answers lean clearly towards 'neutral' and 'agree'. This result is evidenced by the mean value of 3.5 which corresponds to the 'neutral' and 'agree' group.

As part of the impact of macroeconomic policies of the state, the economic changes resulting from the change in interest rate, exchange rate and customs rate is asked to the participants whether they consider this as one of the reasons of non-performing loans.

Table 7. 59: The Economic Changes Resulting From the Change in the Interest Rate, Exchange Rate, Tax and Customs Rates

			Frequency	Percent
Valid	1	Strongly Disagree	4	4.5
	2	Disagree	11	12.4
	3	Neutral	11	12.4
	4	Agree	55	61.8
	5	Strongly Agree	8	9.0
		Total	89	100.0
Mean		3.5843		

From table 7.59 it can be seen that 61.8% of the respondents 'agree' that the economic changes (linked to the interest rate, exchange rate, tax and customs rates) in the Libyan economy caused non-performing loans in the Libyan state-owned commercial banking sector. However, 12.4% of the respondents in each of 'disagree' and 'neutral' groups indicate that the above changes have led to non-performing loans. The mean value of 3.6, which falls between the 'neutral' and 'agree' groups, evidences the result.

Since the subject matter of this study is Libyan state-owned commercial bank, they do come under politically oriented or manipulated monetary and fiscal policies of the state. Therefore, table 7.60 presents the results of the perception analysis of the respondents whether they thought the nationalisation decision of government on some projects financed by loans could be considered as one of the reasons of non-performing loans.

Table 7. 60: The Nationalisation Decision of Government on Some Projects Financed by Loans

			Frequency	Percent
Valid	1	Strongly Disagree	5	5.6
	2	Disagree	4	4.5
	3	Neutral	10	11.2
	4	Agree	45	50.6
	5	Strongly Agree	25	28.1
		Total	89	100.0
Mean		3.9101		

Table 7.60 shows that 50.6% of the respondents 'agree' that the government's nationalisation decision of some projects financed by loans had led to non-performing loans in the Libyan state-owned commercial banks. Also, it can be seen that 28.1% of the respondents 'strongly agree' with this issue. Therefore, this table also shows that the total of 78.7% of the respondents 'agreed' that these decisions had led to non-performing loans in the Libyan state-owned commercial banks. This result is evidenced by the mean value of 4 which reflects the 'agree' indicator.

Table 7. 61: Liquidation of Some Projects Financed by Loans

			Frequency	Percent
Valid	1	Strongly Disagree	2	2.2
	2	Disagree	3	3.4
	3	Neutral	6	6.7
	4	Agree	59	66.3
	5	Strongly Agree	19	21.3
		Total	89	100.0
Mean		4.0112		

As can be seen from table 7.61 that 66.3% of the respondents 'agree' that the decision taken to liquidate some projects financed by loans have caused non-performing loans in the Libyan state-owned commercial banks. Also, it can be observed that 21.3% of the respondents 'strongly agree' that non-performing loans are caused by the decision to liquidate some projects financed by loans. Therefore, a total of 87.6% of the respondents 'agree' that non-performing loans had emerged due to the liquidation of some projects, which had borrowed funds from the Libyan state-owned commercial banking sector. This result is evidenced by the mean value of 4 which corresponds to the 'agree' group.

Table 7. 62: The Difficulty of Collecting Loans Granted to Public Sector Projects

			Frequency	Percent
Valid	1	Strongly Disagree	1	1.1
	2	Disagree	5	5.6
	3	Neutral	10	11.2
	4	Agree	57	64.0
	5	Strongly Agree	16	18.0
		Total	89	100.0
Mean		3.9213		

Table 7.62 shows that 64% of the respondents 'agree' that the Libyan state-owned commercial banks faced difficulties in the process of collecting loans granted to the projects belonging to the public sector. In addition, 18% of the respondents 'strongly agree' with the statement in the above table. Thus, it can be concluded that 82% of the respondents 'agree' that these difficulties have led to non-performing loans in the Libyan state-owned commercial banks sector. This result is evidenced by the mean value of 4 which reflects the 'agree' group.

Table 7. 63: The Weakness of the Control over Banks Especially with Regard to the Function of Granting Loans

			Frequency	Percent
Valid	1	Strongly Disagree	3	3.4
	2	Disagree	12	13.5
	3	Neutral	17	19.1
	4	Agree	47	52.8
	5	Strongly Agree	10	11.2
		Total	89	100.0
Mean		3.5506		

Table 7.63 indicates that 52.8% of the respondents 'agree' that there is a weakness in the process of the control over the banks, especially in the task of granting loans whilst 19.1% of the respondents were 'neutral' on this point. Accordingly, it can be said that the respondent's point of views were fluctuating between 'neutral' and 'agree' that the Libyan state-owned commercial banks had suffered by non-performing loans due to the issue in the above table. This result is evidenced by the mean values of 3.5, which falls between the 'neutral' and 'agree' group.

As part of the local or internal environment related issues, legislation was considered. Therefore, the next section investigates the perceptions of the participants on whether they thought the weakness of legislation for the protection of banks in the event of defaulting borrowers for the repayment of their obligations can be considered as one of the factors of non-performing loans. The result is presented in table 7.64.

Table 7. 64: The Weakness of Legislation for the Protection of Banks in the Event of Defaulting Borrowers for the Repayment of their Obligations

			Frequency	Percent
Valid	1	Strongly Disagree	4	4.5
	2	Disagree	11	12.4
	3	Neutral	10	11.2
	4	Agree	31	34.8
	5	Strongly Agree	33	37.1
		Total	89	100.0
Mean		3.8764		

It can be seen from table 7.64 that 37.1% of the respondents 'strongly agree' and 34.8% of the respondents 'agree' that there were weaknesses in the legislation related to the protection of bank money, which granted in the form of loans. As a result, a total of 71.9% of the respondents 'agree' that the weakness of the legislation of the Libyan state-owned commercial banks had caused non-performing loans. Hence, this result is evidenced by the mean value of approximately 4, which corresponds to the 'agree' group.

Table 7. 65: The Low Level of Judicial Provisions Relating to the Recovery of Loans Value

			Frequency	Percent
Valid	1	Strongly Disagree	3	3.4
	2	Disagree	10	11.2
	3	Neutral	9	10.1
	4	Agree	41	46.1
	5	Strongly Agree	26	29.2
		Total	89	100.0
Mean		3.8652		

Table 7.65 presents the perception analysis of the participants on the low level of judicial provision relating to the recovery of loans value. As can be seen from the table 46.1% of the respondents 'agree' that there is a low level of judicial provisions performance relating to the recovery of loans value in the Libyan state-owned commercial banks. In addition, 29.2% of the respondents were 'strongly agreed' with

the case mentioned in the above table. Consequently, a total of 75.3% of the respondents 'agreed' that the low level of the judicial provisions related to the recovery of loans value have led to non-performing loans in the Libyan commercial banks. This result is evidenced by the mean value of approximately 4 which reflects the 'agree' group.

In summing, the preceding section provides the detailed analysis of the local or internal factors stemming from mainly government policies leading to non-performing loans in the Libyan state owned commercial banking. In order to get a better and more systematic analysis, table 7.66 brings together all the results of this section by providing mean ranking with the objective of establishing importance given to each identified factors by the participants. As can be seen the mean ranking of the respondents' views are listed from the highest to the lowest.

Table 7. 66: Mean Ranking of the Local Conditions-related Reasons, Which Caused Non-performing Loans

	Reasons	Mean ranking
1	Liquidation of some projects financed by loans.	4.0112
2	The difficulty of collecting loans granted to public sector projects.	3.9213
3	The nationalisation decision of government on some projects financed by loans.	3.9101
4	The weakness of legislation for the protection of banks in the event of defaulting borrowers for the repayment of their obligations.	3.8764
5	The low level of judicial provisions relating to the recovery of loans value.	3.8652
6	The economic changes resulting from the change in the interest rate, exchange rate, tax and customs rates.	3.5843
7	The weakness of the control over banks especially with regard to the function of granting loans.	3.5506
8	The changes in the monetary policy of the state.	3.4719

Table 7.66 shows the mean ranking related to the respondents' views regarding local conditions-related reasons, which led to the emergence of non-performing loans in the Libyan state-owned commercial banks. Accordingly, the highest mean rank is 4.0112, which relates to the variable liquidation of some projects financed by loans linked

with the 'agree' criteria. Moreover, the variable of the changes in the monetary policy of the state is ranked as the lowest by mean 3.4719, which relates to the 'neutral' and 'agree' criteria. As the table shows, the respondents gave importance to micro related factors rather than macroeconomic related factors.

7.5.1.2. Factor analysis

In order to provide a more systematic analysis in locating the importance ranking of the identified eight variables in the preceding section, factor analysis was conducted with these eight variables. As before, KMO and Bartlett's test was conducted to check the appropriateness of factor analysis for the identified eight factors.

Table 7. 67: KMO and Bartlett's Test on Local Conditions-related Reasons Causing Non-performing Loans in the Libyan State-owned Commercial Banks

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.776
Bartlett's Test of Sphericity	Approx. Chi-Square	314.767
	Df	28
	Sig.	.000

From the table 7.67 it can be seen that the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy of local conditions-related reasons led to non-performing loans in the Libyan state-owned commercial banks is significant. Kaiser-Meyer-Olkin (KMO) test has recorded a value of 0.8 (rounded) which is for greater than the customary level of 0.6. Also, it can be seen that the Bartlett's test of Sphericity has recorded statistical significance (0.000) which supports the factorability of the correlation matrix. As a result, it can be said that factor analysis is considered as acceptable in the case of the identified variables. The initial results of the factor analysis are presented in table 7.68.

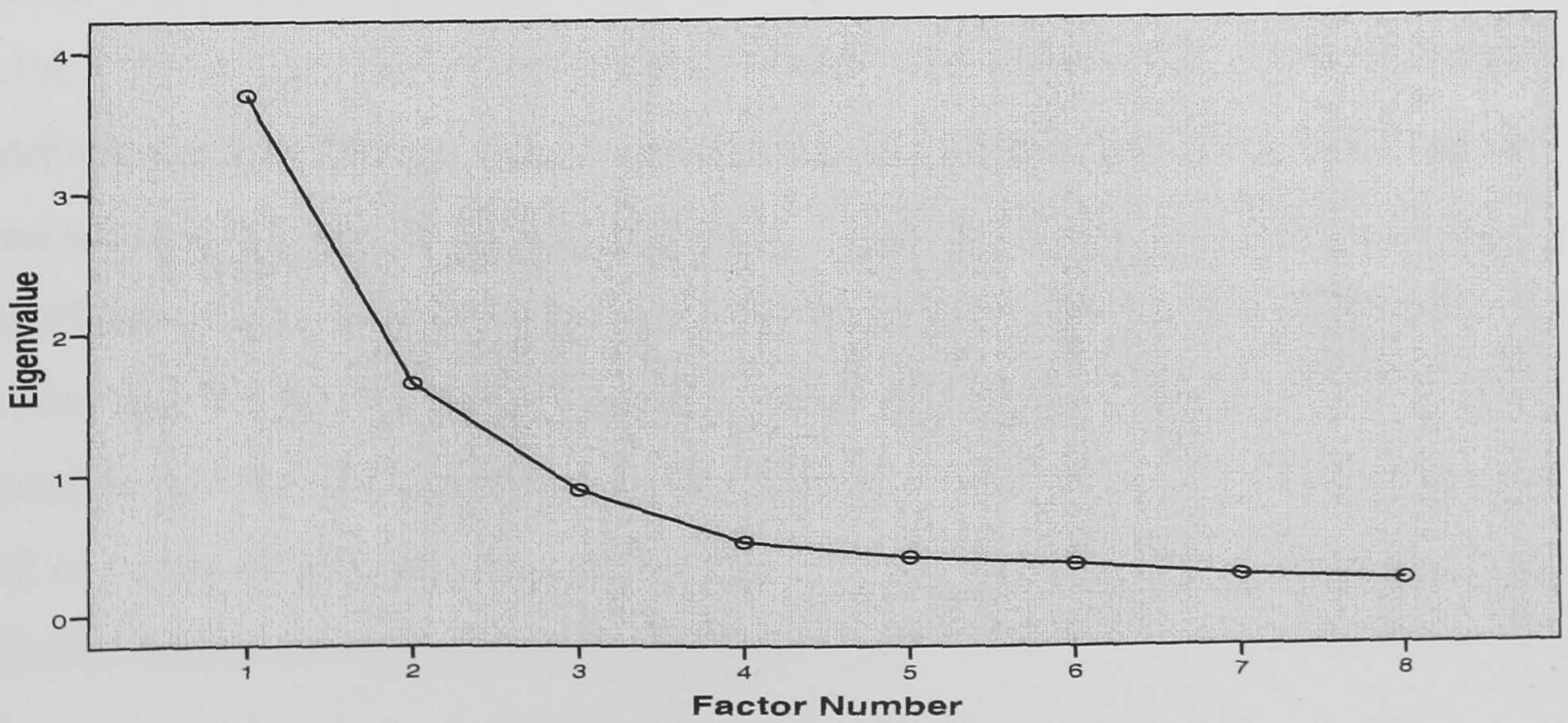
Table 7. 68: Total Variance Explained of Local Conditions-related Reasons Causing Non-performing Loans in the Libyan State-owned Commercial Banks

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.698	46.229	46.229	3.290	41.123	41.123	2.514	31.429	31.429
2	1.645	20.565	66.794	1.258	15.719	56.842	2.033	25.412	56.842
3	.891	11.135	77.929						
4	.515	6.433	84.362						
5	.404	5.046	89.408						
6	.353	4.412	93.820						
7	.268	3.352	97.172						
8	.226	2.828	100.000						

Extraction Method: Principal Axis Factoring.

As can be seen from table 7.68, that eight items can simply be reduced to two factors. Those factors are extracted because of the Eigenvalue is recorded greater than 1.0. As a result, the acceptable factors have recorded a total initial Eigenvalue of 3.7 relating to the first factor and 1.64 related to the second factor. Thus, the variances of the significance factor are explained as follows: 31.43% by the first factor and 25.41% by the second factor. Accordingly, the significant factors together explain a total 57% of the variance observed.

Figure 7. 3: Scree Plot



The initial result of the factor analysis is substantiated by Figure 7.3 or the scree plot, which shows that the plot slopes steeply downwards for the first and second factors. However, the plot starts moving slowly towards the horizontal line from the third factor. As a result, it can be said that the first and second factors are considered as the significant factors.

Table 7. 69: Rotated Factor Matrix (a) on Local Conditions-related Reasons Causing Non-performing Loans in the Libyan State-owned Commercial Banks

Variable	Factor		Communality of Each Variable
	1	2	
CMPS	**.836**		.716
EC	**.747**		.558
LP	**.738**		.601
ND	**.719**		.614
DCLGP	**.356**	**.329**	.235
WLP		**.799**	.606
WCOB		**.765**	.671
LLPJ		**.728**	.545
Eigenvalue	3.698	1.645	
% of Variance	31.429	31.429	
Cumulative %	25.412	56.842	

Extraction Method: Principal Axis Factoring.
Rotation Method: Varimax with Kaiser Normalization.

Table 7.69 shows the last leg of the factor analysis, which shows the result of the rotated factors of the internal conditions-related reasons caused non-performing loans in the Libyan state-owned commercial banks. As can be seen eight variables are distributed to two factors. As a result, the Eigenvalue and variance of the first factor is recorded as 3.7 and 31.43% respectively. Also, the Eigenvalue and variance of the second factor is recorded as 1.64 and 31.43% respectively. On the other hand, it can be seen that the first factor includes five items with loadings from .35 to .83, and the second factor includes three items with loadings from .73 to .8. Consequently, the total of cumulative factors recorded is 57%. Table 7.70 provides explanations for the variables whose acronyms presented in table 7.68.

Table 7. 70: The Variables Definitions of Local Conditions-related Reasons Causing Non-performing Loans in the Libyan State-owned Commercial Banks

Variable	Definition
CMPS	The changes in the monetary policy of the state.
EC	The economic changes resulting from the change in the interest rate, exchange rate, tax and customs rates.
LP	Liquidation of some projects financed by loans.
ND	Nationalisation decision of government on some projects financed by loans.
DCLGP	The difficulty of collecting loans granted to public sector projects.
WLP	The weakness of legislation for the protection of banks in the event of defaulting borrowers for the repayment of their obligations.
WCOB	The weakness of the control over banks especially with regard to the function of granting loans.
LLPJ	The low level of judicial provisions relating to the recovery of loans value.

7.5.1.3. Cross-tabulation

In the third level of analysis related to local or internal factors causing non-performing loans in Libyan state own commercial banks, cross tabulation analysis is conducted. In doing so each of the eight determined statement or variable is cross-tabulated to correlate with experience as a control variable with the same logic explained in the previous cross-tabulation analysis sections.

Table 7. 71: Cross-tabulation of the Changes in the State's Monetary Policy with the Respondent's Experience

			The changes in the monetary policy of the state (CMPS)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	1	1	5	8	1	16
		% within Experience	6.3%	6.3%	31.3%	50.0%	6.3%	100%
		% within CMPS	14.3%	20.0%	23.8%	15.7%	20.0%	18.0%
	6-10	Count	4	1	4	9	1	19
		% within Experience	21.1%	5.3%	21.1%	47.4%	5.3%	100%
		% within CMPS	57.1%	20.0%	19.0%	17.6%	20.0%	21.3%
	11-15	Count	0	0	3	5	1	9
		% within Experience	.0%	.0%	33.3%	55.6%	11.1%	100%
		% within CMPS	.0%	.0%	14.3%	9.8%	20.0%	10.1%
	16-20	Count	1	0	4	12	0	17
		% within Experience	5.9%	.0%	23.5%	70.6%	.0%	100%
		% within CMPS	14.3%	.0%	19.0%	23.5%	.0%	19.1%
	21-25	Count	1	0	3	6	2	12
		% within Experience	8.3%	.0%	25.0%	50.0%	16.7%	100%
		% within CMPS	14.3%	.0%	14.3%	11.8%	40.0%	13.5%
	Over 26	Count	0	3	2	11	0	16
		% within Experience	.0%	18.8%	12.5%	68.8%	.0%	100%
		% within CMPS	.0%	60.0%	9.5%	21.6%	.0%	18.0%
Total		Count	7	5	21	51	5	89
		% within Experience	7.9%	5.6%	23.6%	57.3%	5.6%	100%
		% within CMPS	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.469(a)	20	.370
Likelihood Ratio	23.272	20	.276
Linear-by-Linear Association	.979	1	.323
N of Valid Cases	89		

a. 24 cells (80.0%) have expected count less than 5. The minimum expected count is .51.

Table 7.71 shows the results of the cross-tabulation between the experience of the staff members and the statement whether they thought that changes in Libyan monetary policy caused non-performing loans in the state-owned commercial banks. The Chi-square test produces 0.370, which is higher than the significance level 0.05 implying that there is no statistically significant relationship between the two variables, and we cannot reject the null hypothesis that the two variables are independent. Thus, it can be concluded that a total of 63% of the respondents 'agree' and 'strongly agree' that non-performing loans emerged in the Libyan state-owned commercial banking sector. Additionally, it can be noted that the respondents in each experience group have similar views that non-performing loans have emerged due to the changes in the states monetary policy.

In addition, it can be observed that 57.1% of the respondents are concentrated in the group 6-10, which relates to the 'strongly disagree' criteria. Moreover, regarding the 'disagree' criteria, 60% of the respondents are concentrated in the group over 26. On the other hand, the highest percentage of the respondents' distribution regarding the 'agree' criteria is 23.5% and 21.6% among the groups 16-20 and over 26. Furthermore, the over 26 group presented the highest percentage of the respondents' distribution regarding the 'strongly agree' criteria, which is 40%.

Table 7. 72: Cross-tabulation of the Economic Changes with the Respondent's Experience

			The economic changes resulting from the change in the interest rate, exchange rate, tax and customs rates (EC)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	0	1	1	12	2	16
		% within Experience	.0%	6.3%	6.3%	75.0%	12.5%	100%
		% within EC	.0%	9.1%	9.1%	21.8%	25.0%	18.0%
	6-10	Count	2	5	3	7	2	19
		% within Experience	10.5%	26.3%	15.8%	36.8%	10.5%	100%
		% within EC	50.0%	45.5%	27.3%	12.7%	25.0%	21.3%
	11-15	Count	0	1	1	6	1	9
		% within Experience	.0%	11.1%	11.1%	66.7%	11.1%	100%
		% within EC	.0%	9.1%	9.1%	10.9%	12.5%	10.1%
	16-20	Count	1	1	3	12	0	17
		% within Experience	5.9%	5.9%	17.6%	70.6%	.0%	100%
		% within EC	25.0%	9.1%	27.3%	21.8%	.0%	19.1%
	21-25	Count	1	0	1	7	3	12
		% within Experience	8.3%	.0%	8.3%	58.3%	25.0%	100%
		% within EC	25.0%	.0%	9.1%	12.7%	37.5%	13.5%
	Over 26	Count	0	3	2	11	0	16
		% within Experience	.0%	18.8%	12.5%	68.8%	.0%	100%
		% within EC	.0%	27.3%	18.2%	20.0%	.0%	18.0%
Total		Count	4	11	11	55	8	89
		% within Experience	4.5%	12.4%	12.4%	61.8%	9.0%	100%
		% within EC	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.607(a)	20	.421
Likelihood Ratio	25.018	20	.201
Linear-by-Linear Association	.002	1	.961
N of Valid Cases	89		

a. 24 cells (80.0%) have expected count less than 5. The minimum expected count is .40.

Table 7.72 shows the cross-tabulation between the respondent's experience and whether economic changes had adverse effects on the Libyan state-owned commercial banking sector. As a result, Chi-square level is 0.421 indicating that there is no statistically significant relationship between the two variables. It can be noted that a total of 71% of the respondents 'agree' and 'strongly agree' that the Libyan state-owned commercial banks affected by the economic changes resulted from the change in the interest rate, exchange rate, tax and customs rates. Moreover, most of the respondents have similar views with regards that non-performing loans had emerged as a result of the reason stated in the above table. Since there is a general trend in the response, this explains the statistically insignificant result indicating that there is no significant mean difference.

Regarding the 'strongly disagree' criteria, it can bee seen that the highest respondents' distribution is 50% related to the group 6-10 and 25% for each of the groups 16-20 and 21-25. Furthermore, regarding the 'disagree' criteria 45.5% of the respondents are concentrated among the group 6-10 followed by 27.3% among the group over 26. On the other hand, the highest percentage of the respondents' distribution regarding the 'agree' criteria is 21.8% for each of the groups less than 5 years and 16-20 year. Moreover, regarding the 'strongly agree' criteria, 37.5% of the respondents are concentrated in the group 21-25 followed by 25% for each of the groups less than 5 and 6-10.

Table 7. 73: Cross-tabulation of Nationalisation Decisions with the Respondent's Experience

			Nationalisation decision of government on some projects financed by loans (ND)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	0	1	4	5	6	16
		% within Experience	.0%	6.3%	25.0%	31.3%	37.5%	100%
		% within ND	.0%	25.0%	40.0%	11.1%	24.0%	18.0%
	06-10	Count	3	1	3	6	6	19
		% within Experience	15.8%	5.3%	15.8%	31.6%	31.6%	100%
		% within ND	60.0%	25.0%	30.0%	13.3%	24.0%	21.3%
	11-15	Count	0	1	0	4	4	9
		% within Experience	.0%	11.1%	.0%	44.4%	44.4%	100%
		% within ND	.0%	25.0%	.0%	8.9%	16.0%	10.1%
	16-20	Count	1	0	1	13	2	17
		% within Experience	5.9%	.0%	5.9%	76.5%	11.8%	100%
		% within ND	20.0%	.0%	10.0%	28.9%	8.0%	19.1%
	21-25	Count	1	0	1	8	2	12
		% within Experience	8.3%	.0%	8.3%	66.7%	16.7%	100%
		% within ND	20.0%	.0%	10.0%	17.8%	8.0%	13.5%
	Over 26	Count	0	1	1	9	5	16
		% within Experience	.0%	6.3%	6.3%	56.3%	31.3%	100%
		% within ND	.0%	25.0%	10.0%	20.0%	20.0%	18.0%
Total		Count	5	4	10	45	25	89
		% within Experience	5.6%	4.5%	11.2%	50.6%	28.1%	100%
		% within ND	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.570(a)	20	.310
Likelihood Ratio	25.547	20	.181
Linear-by-Linear Association	.436	1	.509
N of Valid Cases	89		

a. 24 cells (80.0%) have expected count less than 5. The minimum expected count is .40.

Cross-tabulation between the experience of the staff members and the statement, whether the Libyan's nationalisation decisions have led to the emergence of non-performing loans is shown in table 7.73. As can be seen the Chi-square level is 0.310, which is higher than the significance level 0.05 indicating that there is no statistically significant relationship between the variables. On the other hand, it can be noted that most of the respondents in each experience group have similar views that the nationalisation decisions issued by the Libyan Government on the projects financed by loans had caused non-performing loans. Furthermore, a total of 78.7% of the respondents 'agree' and 'strongly agree' that the Libyan state-owned commercial banks had been exposed to non-performing loans because of the Libyan Government decisions on the nationalisation process which related to some projects financed by loans. Having a general pattern in the responses explain as to why Chi-square test is not significant meaning that mean differences are not significant.

Regarding the vertical analysis, 60% of the respondents in the group 6-10, 'strongly disagree'. Furthermore, regarding the 'disagree' criteria, it can be seen that the respondents are equally distributed among the groups less than 5, 6-10, 11-15 and over 26 at a percentage of 25% for each group. On the other hand, the highest percentage of the respondents' distribution regarding the 'agree' criteria is 28.9%, which relates to the group 16-20. Also, it can be noted that the highest percentage of the respondents' distribution regarding the 'strongly agree' criteria is 24% for each of the groups less than 5 and 6-10.

Table 7. 74: Cross-tabulation of Liquidation of Some Projects with the Respondent's Experience

			Liquidation of some projects financed by loans (LP)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	0	0	4	11	1	16
		% within Experience	.0%	.0%	25.0%	68.8%	6.3%	100%
		% within LP	.0%	.0%	66.7%	18.6%	5.3%	18.0%
	6-10	Count	2	2	2	9	4	19
		% within Experience	10.5%	10.5%	10.5%	47.4%	21.1%	100%
		% within LP	100%	66.7%	33.3%	15.3%	21.1%	21.3%
	11-15	Count	0	0	0	6	3	9
		% within Experience	.0%	.0%	.0%	66.7%	33.3%	100%
		% within LP	.0%	.0%	.0%	10.2%	15.8%	10.1%
	16-20	Count	0	1	0	11	5	17
		% within Experience	.0%	5.9%	.0%	64.7%	29.4%	100%
		% within LP	.0%	33.3%	.0%	18.6%	26.3%	19.1%
	21-25	Count	0	0	0	11	1	12
		% within Experience	.0%	.0%	.0%	91.7%	8.3%	100%
		% within LP	.0%	.0%	.0%	18.6%	5.3%	13.5%
	Over 26	Count	0	0	0	11	5	16
		% within Experience	.0%	.0%	.0%	68.8%	31.3%	100%
		% within LP	.0%	.0%	.0%	18.6%	26.3%	18.0%
Total		Count	2	3	6	59	19	89
		% within Experience	2.2%	3.4%	6.7%	66.3%	21.3%	100%
		% within LP	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	31.063(a)	20	.054
Likelihood Ratio	31.567	20	.048
Linear-by-Linear Association	6.541	1	.011
N of Valid Cases	89		

a. 24 cells (80.0%) have expected count less than 5. The minimum expected count is .20.

Table 7.74 demonstrates cross-tabulation analysis results between the respondent's experience and whether non-performing loans emerged in the Libyan state-owned commercial banks due to the liquidation of some projects financed by loans. Checking the Chi-square test shows that critical level is 0.054, which is very close to the significance level (0.05). It, therefore, could be concluded that there is a statistically significant relationship between the two variables, and we can reject the null hypothesis that the two variables are independent. As a result, the majority of the respondents in each experience group have similar views (agree and strongly agree) that the liquidation of some projects financed by loans had caused non-performing loans. Accordingly, it can be seen that 100% of the respondents in the experience groups of 11-15 years, 21-25 years and over 26 years 'agree' and 'strongly agree'. Also, the groups of 16-20 years, less than 5 years and 6-10 years 'agree' and 'strongly agree' by the percentage of 94.1%, 75.1% and 68.5%, respectively that the Libyan state-owned commercial banks had faced non-performing loans because of the liquidation of some projects financed by loans. On the other hand, a total of 87.6% of the respondents 'agree' and 'strongly agree' that the decisions regarding the process of liquidating some projects financed by loans caused non-performing loans. Hence, it may be noted that groups with more experience are in further support of the statement that the liquidation of some of projects financed by loans, which are considered as one of the reasons, which caused non-performing loans. In other words, differences in experience, and hence the differences in mean value, is statistically significant in responding to this variable.

In addition, it can be seen that the 'strongly disagree' criteria presents 100% of the respondents concentrated in the group 6-10. Furthermore, the highest percentages of the respondents' distribution regarding 'disagree' criteria are 66.7% and 33.3% among the groups 6-10 and 16-20. On the other hand, regarding the 'strongly agree' criteria, the highest percentage of the respondents' distribution is 26.3% among the groups 6-10 and over 26.

Table 7. 75: Cross-tabulation of the Difficulty of Collecting Loans from Public Projects with the Respondent's Experience

			The difficulty of collecting loans granted to public sector projects (DCLGP)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	1	0	4	10	1	16
		% within Experience	6.3%	.0%	25.0%	62.5%	6.3%	100%
		% within DCLGP	100%	.0%	40.0%	17.5%	6.3%	18.0%
	6-10	Count	0	5	0	8	6	19
		% within Experience	.0%	26.3%	.0%	42.1%	31.6%	100%
		% within DCLGP	.0%	100%	.0%	14.0%	37.5%	21.3%
	11-15	Count	0	0	2	4	3	9
		% within Experience	.0%	.0%	22.2%	44.4%	33.3%	100%
		% within DCLGP	.0%	.0%	20.0%	7.0%	18.8%	10.1%
	16-20	Count	0	0	0	15	2	17
		% within Experience	.0%	.0%	.0%	88.2%	11.8%	100%
		% within DCLGP	.0%	.0%	.0%	26.3%	12.5%	19.1%
	21-25	Count	0	0	1	11	0	12
		% within Experience	.0%	.0%	8.3%	91.7%	.0%	100%
		% within DCLGP	.0%	.0%	10.0%	19.3%	.0%	13.5%
	Over 26	Count	0	0	3	9	4	16
		% within Experience	.0%	.0%	18.8%	56.3%	25.0%	100%
		% within DCLGP	.0%	.0%	30.0%	15.8%	25.0%	18.0%
Total		Count	1	5	10	57	16	89
		% within Experience	1.1%	5.6%	11.2%	64.0%	18.0%	100%
		% within DCLGP	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	44.016(a)	20	.001
Likelihood Ratio	44.812	20	.001
Linear-by-Linear Association	2.834	1	.092
N of Valid Cases	89		

a. 24 cells (80.0%) have expected count less than 5. The minimum expected count is .10.

Table 7.75 shows the cross-tabulation between the respondents' experiences and the statement whether there is difficulty to collect some loans granted by the Libyan state-owned commercial banks to the public sector projects. The Chi-square level of 0.001 is much lower than the customary level 0.05. Therefore, it can be said that there is statistically significant correlation between the two variables, and we can reject the null hypothesis that the two variables are independent. To support this, it can be seen that the total of 82% of the respondents agree and strongly agree that the Libyan state-owned commercial banks had suffered by the difficulty of collecting their funds which have been granted the public sector. In addition, it can be noted that the experience group 16-20 years 'agree' and 'strongly agree' at100% followed by the groups 21-25 years and over 26 years by proportions of 91.7% and 81.3% respectively. Also, the experience groups less than 5 years, 6-10 years and 11-15 years 'agree' and 'strongly agree' by the percentage of 68.8.%, 73.7% and 77.7% respectively. Accordingly, it can be concluded that the groups with more experience are very inclined to 'agree' and 'strongly agree' that the emergence of non-performing loans resulted from the reason mentioned in the preceding table. In this case, hence, also differences in experience are significant in relation to the answers give to the mentioned statement. In other words, differences in the mean value are significant in terms of the answers given.

In addition, it can be seen that 100% of the respondents concentrated in each of the groups less than 5 'strongly disagree' and 6-10 disagree. On the other hand, the highest percentage of the respondents' distribution regarding to 'agree' criteria is 26.3%, which related to the group 16-20. Furthermore, the highest percentages of the respondents' distribution for the 'strongly agree' criteria are 37.5% and 25%, which relates to the groups 6-10 and over 26 respectively.

Table 7. 76: Cross-tabulation of the Weakness of the Control over the Banks with the Respondent's Experience

			The weakness of the control over banks especially with regard to the function of granting loans (WCOB)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	1	5	6	3	1	16
		% within Experience	6.3%	31.3%	37.5%	18.8%	6.3%	100%
		% within WCOB	33.3%	41.7%	35.3%	6.4%	10.0%	18.0%
	6-10	Count	2	2	3	9	3	19
		% within Experience	10.5%	10.5%	15.8%	47.4%	15.8%	100%
		% within WCOB	66.7%	16.7%	17.6%	19.1%	30.0%	21.3%
	11-15	Count	0	2	1	6	0	9
		% within Experience	.0%	22.2%	11.1%	66.7%	.0%	100%
		% within WCOB	.0%	16.7%	5.9%	12.8%	.0%	10.1%
	16-20	Count	0	2	0	13	2	17
		% within Experience	.0%	11.8%	.0%	76.5%	11.8%	100%
		% within WCOB	.0%	16.7%	.0%	27.7%	20.0%	19.1%
	21-25	Count	0	0	4	8	0	12
		% within Experience	.0%	.0%	33.3%	66.7%	.0%	100%
		% within WCOB	.0%	.0%	23.5%	17.0%	.0%	13.5%
	Over 26	Count	0	1	3	8	4	16
		% within Experience	.0%	6.3%	18.8%	50.0%	25.0%	100%
		% within WCOB	.0%	8.3%	17.6%	17.0%	40.0%	18.0%
Total		Count	3	12	17	47	10	89
		% within Experience	3.4%	13.5%	19.1%	52.8%	11.2%	100%
		% within WCOB	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	31.498(a)	20	.049
Likelihood Ratio	37.889	20	.009
Linear-by-Linear Association	9.524	1	.002
N of Valid Cases	89		

a. 25 cells (83.3%) have expected count less than 5. The minimum expected count is .30.

Cross-tabulation in table 7.76 shows whether there is a statistically significant correlation between the respondent's experiences and whether they perceive there is a weakness in terms of the control over the Libyan state-owned commercial banks. As a result, it can be seen that the Chi-square level is 0.049, is lower than the significance level 0.05. It can, therefore, be concluded that there is a statistically significant relationship between the two variables, and we can reject the null hypothesis that the two variables are independent. This can be evidenced with the individual results: for instance, a total of 64% of the respondents 'agree' and 'strongly agree' that non-performing loans had emerged due to the weakness of the Central Bank of Libya to control its commercial banks. Therefore, a total of 37.6% of the respondents relevant to the experience group less than 5 years 'strongly disagree' and 'disagree' that there is a weakness in terms of the control over the Libyan state-owned commercial banks. In contrast, the other respondents in the experience groups 6-10 years, 11-15 years, 16-20 years, 21-25 years and over 26 years 'agree' and 'strongly agree' at 63.2%, 66.7%, 88.3%, 66.7% and 75%, respectively that the Libyan state-owned commercial banks have been expose to non-performing loans because of the reason mentioned in the previous table. As discussed, in this case also mean differences or the differences in the experience level is significant in terms of the responses given. In other words, each group has a particular pattern in their responses to the given statements.

Regarding the 'strongly disagree' criteria the respondents are concentrated among the groups less than 5 and 6-10 at 33.3% and 66.7% respectively. Additionally, the highest percentage of the respondents' distribution is 41.7%, which relates to the group less than 5 regarding the 'disagree' criteria. On the other hand, 27.2% is the highest percentage of the respondents' distribution which relates to the group 16-20 regarding the 'agree' criteria. Moreover, it can be seen that 30% and 40% are the highest percentage of the respondents' distribution regarding the 'strongly agree', which relates to the groups 6-10 and over 26 respectively.

Table 7. 77: Cross-tabulation of the Weakness in the Legislation Regarding the Protecting Banks with the Respondent's Experience

			The weakness of legislation for the protection of banks in the event of defaulting borrowers for the repayment of their obligations (WLP)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	1	2	4	6	3	16
		% within Experience	6.3%	12.5%	25.0%	37.5%	18.8%	100%
		% within WLP	25.0%	18.2%	40.0%	19.4%	9.1%	18.0%
	6-10	Count	3	2	1	6	7	19
		% within Experience	15.8%	10.5%	5.3%	31.6%	36.8%	100%
		% within WLP	75.0%	18.2%	10.0%	19.4%	21.2%	21.3%
	11-15	Count	0	2	2	4	1	9
		% within Experience	.0%	22.2%	22.2%	44.4%	11.1%	100%
		% within WLP	.0%	18.2%	20.0%	12.9%	3.0%	10.1%
	16-20	Count	0	2	1	4	10	17
		% within Experience	.0%	11.8%	5.9%	23.5%	58.8%	100%
		% within WLP	.0%	18.2%	10.0%	12.9%	30.3%	19.1%
	21-25	Count	0	2	1	6	3	12
		% within Experience	.0%	16.7%	8.3%	50.0%	25.0%	100%
		% within WLP	.0%	18.2%	10.0%	19.4%	9.1%	13.5%
	Over 26	Count	0	1	1	5	9	16
		% within Experience	.0%	6.3%	6.3%	31.3%	56.3%	100%
		% within WLP	.0%	9.1%	10.0%	16.1%	27.3%	18.0%
Total		Count	4	11	10	31	33	89
		% within Experience	4.5%	12.4%	11.2%	34.8%	37.1%	100%
		% within WLP	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.621(a)	20	.259
Likelihood Ratio	23.677	20	.257
Linear-by-Linear Association	5.720	1	.017
N of Valid Cases	89		

a. 22 cells (73.3%) have expected count less than 5. The minimum expected count is .40.

Table 7.77 shows the cross-tabulation between the respondent's experience and the statement whether there is weakness in the legislation related to the protection of the banks funds. Chi-square test produced a score of 0.259, which is higher than the customary level 0.05. Consequently, it can be said that there is no statistically significant relationship between the two variables. The majority of the respondents in each experience group have similar views regarding the non-performing loans which had emerged in the Libyan state-owned commercial banks due to the weakness of legislation relating to the protection of the banks in the case of the borrowers' default to repay their obligations. Accordingly, it can be noted that there is a fluctuation in the respondents' views in terms of 'agree' and 'strongly agree'. Thus, since each groups' answers converge, therefore Chi-square test came out to be insignificant.

Additionally, it can be seen that the respondents are concentrated regarding the 'strongly disagree' criteria among the groups less than 5 and 6-10 by percentage of 25% and 75% respectively. On the other hand, the highest percentage of the respondents' distribution regarding the 'strongly agree' criteria is 30.3% and 27.3%, which relate to the groups 16-20 and over 26 respectively.

Table 7. 78: Cross-tabulation of the Low Level of Provisions Judicial with the Respondent's Experience

			The low level of provisions judicial relating to the recovery of loans value (LLPJ)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	0	2	4	7	3	16
		% within Experience	.0%	12.5%	25.0%	43.8%	18.8%	100%
		% within LLPJ	.0%	20.0%	44.4%	17.1%	11.5%	18.0%
	6-10	Count	1	3	3	6	6	19
		% within Experience	5.3%	15.8%	15.8%	31.6%	31.6%	100%
		% within LLPJ	33.3%	30.0%	33.3%	14.6%	23.1%	21.3%
	11-15	Count	0	3	0	5	1	9
		% within Experience	.0%	33.3%	.0%	55.6%	11.1%	100%
		% within LLPJ	.0%	30.0%	.0%	12.2%	3.8%	10.1%
	16-20	Count	0	0	1	12	4	17
		% within Experience	.0%	.0%	5.9%	70.6%	23.5%	100%
		% within LLPJ	.0%	.0%	11.1%	29.3%	15.4%	19.1%
	21-25	Count	1	2	1	6	2	12
		% within Experience	8.3%	16.7%	8.3%	50.0%	16.7%	100%
		% within LLPJ	33.3%	20.0%	11.1%	14.6%	7.7%	13.5%
	Over 26	Count	1	0	0	5	10	16
		% within Experience	6.3%	.0%	.0%	31.3%	62.5%	100%
		% within LLPJ	33.3%	.0%	.0%	12.2%	38.5%	18.0%
Total		Count	3	10	9	41	26	89
		% within Experience	3.4%	11.2%	10.1%	46.1%	29.2%	100%
		% within LLPJ	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.805(a)	20	.058
Likelihood Ratio	34.488	20	.023
Linear-by-Linear Association	3.488	1	.062
N of Valid Cases	89		

a. 24 cells (80.0%) have expected count less than 5. The minimum expected count is .30.

The respondent's experience and the statement whether there is low level of judicial provisions relating to the recovery of loans values are correlated and the results are presented in table 7.78. Checking Chi-square level (0.058) indicates that it is within the acceptable confidence region, as it is very close to significance level of 0.05. Therefore, it could be said that there is a simple statistically significant relationship between the two variables.

As a result, regarding to the experience groups most of the respondents have similar views that there is a low level of judicial provisions relating to the recovery of loans values granted by the Libyan state-owned commercial banks. Furthermore, a total of 75.3% of the respondents 'agree' and 'strongly agree' that non-performing loans emerged by the reason mentioned in the above table. It can be noted that the more experienced the respondents the more they 'agree' and 'strongly agree' that the Libyan state-owned commercial banks had been exposed to the problem of non-performing loans due to the low level of judicial provisions which is relevant to the process of the loans recovery. Since each group has a particular pattern of response rather than responses being converged, the Chi-square test produces positive results.

Regarding the vertical analysis, when checking the 'strongly disagree' criteria, it can be noted that the respondents' distribution is equally concentrated in the groups 6-10, 21-25 and over 26 at 33.3% for each group. Furthermore, the highest percentage of the respondents' distribution regarding the 'disagree' criteria is 30%, which related to each of the groups 6-10 and 11-15. On the other hand, 29.3% is the highest percentage of the respondents' distribution regarding the 'agree' criteria, in the group 16-20. Additionally, regarding the strongly 'agree' criteria, the highest percentages of the respondents' distribution are 23.1% and 38.5%, related to the groups 6-10 and over 26, respectively.

7.5.2. International Conditions (External Factors)

While the preceding section focused on internal factors leading to non-performing loans, this section focuses on external conditions, which are those factors that occur outside the realm of state and government policies. As discussed in Chapter 2, there are a number of external factors which caused non-performing loans. Therefore, the subsequent section presents the external factors which had led to non-performing loans in the Libyan state-owned commercial banks.

7.5.2.1. Descriptive analysis

Since a number of external factors are determined, this section aims to examine the perceptions of the participants towards these factors. Table 7.79 provides the result of the perception analysis of the respondents to the statement that the spill-over impact of the economic and financial crisis emerging from other countries had impact on the non-performing loans.

Table 7. 79: The spill-over Impact of the Economic and Financial Crises which Erupted in other Countries

			Frequency	Percent
Valid	1	Strongly Disagree	9	10.1
	2	Disagree	23	25.8
	3	Neutral	29	32.6
	4	Agree	26	29.2
	5	Strongly Agree	2	2.2
		Total	89	100.0
Mean		2.8764		

Table 7.79 shows that 32.6% of the respondents were neutral that the financial crisis, which erupted in some countries, had caused non-performing loans (NPLs) in the Libyan state-owned commercial banks. In addition, it can be seen that 29.2% of the respondents 'agree' that those crises led to non-performing loans. As a result, it can be said that the respondent's views were 'neutral' on whether the external factors had a negative impact on the Libyan state-owned commercial banks and led to the non-performing loans problem. This result is evidenced by the mean value of approximately 3, which falls into an interval between 'disagree' and the 'neutral' group, but is skewed towards 'neutral' group.

An important issue in the case of Libya was the international sanctions imposed on Libya in 1990s, which interrupted Libya's connection with the globalised world. This was explored with the participants in terms of its impact on non-performing loans, and the result is presented in table 7.80.

Table 7. 80: Impact of the International Sanctions Imposed by the International Community on Libya

			Frequency	Percent
Valid	1	Strongly Disagree	5	5.6
	2	Disagree	13	14.6
	3	Neutral	13	14.6
	4	Agree	42	47.2
	5	Strongly Agree	16	18.0
		Total	89	100.0
Mean		3.5730		

Table 7.80 shows that 47.2% of the respondents 'agree' that the sanctions imposed by the international community had caused non-performing loans in the Libyan state-owned commercial banks. In addition, it can be seen that 18% of the respondents 'strongly agree' that the issue in the above table had caused non-performing loans. Thus, it can be seen that the total of 65.2% of the respondents were 'agreed' that the sanctions imposed by international community on Libya had caused non-performing loans in Libyan state-owned commercial banks. On the other hand, it can be seen that the mean value is 3.6, which corresponds to the 'neutral' and 'agree' groups, but skews towards 'agree'.

The results of these two important factors are summarised and brought together in table 7.81, where the rank order was established to figure out the importance given to each of the factor.

Table 7. 81: Mean Ranking of the International Conditions-related Reasons, which Caused Non-performing Loans

	Reasons	**Mean ranking**
1	Impact of the international sanctions imposed by the international community on Libya.	3.5730
2	The spill-over impact of the economic and financial crises which erupted in other countries.	2.8764

Table 7.81 has been designed to present the mean ranking of respondents' views regarding the national conditions-related reasons, which led to non-performing loans in the Libyan state-owned commercial banks. As can be seen, the impact of the international sanctions imposed by the international community on Libya has been ranked as the first important factor with a mean value of 3.5730. In addition, the

reason of spill-over impact of the economic and financial crises which erupted in other countries has been ranked as the second with a mean value of 2.8764.

7.5.2.2. Cross-tabulation

Since factor analysis could not be conducted only with two factors or variables in this section, therefore the analysis moved to cross-tabulation analysis, the result of which is detailed in the following tables.

Table 7. 82: Cross-tabulation of the Impact of Financial Crises which Erupted Abroad with the Respondent's Experience

			The spill over impact of the economic and financial crises erupted in other countries (EFCED)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	3	1	6	6	0	16
		% within Experience	18.8%	6.3%	37.5%	37.5%	.0%	100%
		% within EFCEDC	33.3%	4.3%	20.7%	23.1%	.0%	18.0%
	6-10	Count	2	5	5	6	1	19
		% within Experience	10.5%	26.3%	26.3%	31.6%	5.3%	100%
		% within EFCEDC	22.2%	21.7%	17.2%	23.1%	50.0%	21.3%
	11-15	Count	1	0	4	4	0	9
		% within Experience	11.1%	.0%	44.4%	44.4%	.0%	100%
		% within EFCEDC	11.1%	.0%	13.8%	15.4%	.0%	10.1%
	16-20	Count	1	6	6	4	0	17
		% within Experience	5.9%	35.3%	35.3%	23.5%	.0%	100%
		% within EFCEDC	11.1%	26.1%	20.7%	15.4%	.0%	19.1%
	21-25	Count	0	3	4	4	1	12
		% within Experience	.0%	25.0%	33.3%	33.3%	8.3%	100%
		% within EFCEDC	.0%	13.0%	13.8%	15.4%	50.0%	13.5%
	Over 26	Count	2	8	4	2	0	16
		% within Experience	12.5%	50.0%	25.0%	12.5%	.0%	100%
		% within EFCEDC	22.2%	34.8%	13.8%	7.7%	.0%	18.0%
Total		Count	9	23	29	26	2	89
		% within Experience	10.1%	25.8%	32.6%	29.2%	2.2%	100%
		% within EFCEDC	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.730(a)	20	.475
Likelihood Ratio	23.855	20	.249
Linear-by-Linear Association	1.435	1	.231
N of Valid Cases	89		

a. 25 cells (83.3%) have expected count less than 5. The minimum expected count is .20.

Table 7.82 shows the cross-tabulation between the respondent's experiences and whether the economic and financial crises which erupted in other countries have impacted the Libyan economy. Chi-square test produced the score of 0.475, which is higher than the significant level 0.05. Hence, there is no statistically significant correlation between the two variables.

Given the above table, the respondents in each experience groups have different views regarding the impact of the international financial crises on the Libyan economy on non-performing loans in the Libyan state-owned commercial banks. Consequently, it can be seen that the respondents' views in the first group (less than 5 years) 'agree' at 37.5% and are 'neutral' at 37.5%. Also the total respondents in the second group (6-10 years) 'strongly disagree' and 'disagree' at 36.8% and 'agree' and 'strongly agree' at 36.9%. Furthermore, the respondents in the third experience group (11-15) are 'neutral' at 44.4% and 'agree' at 44.4%, the fourth experience group (16-20 years) 'strongly disagree' and 'disagree' at a total of 41.2%, however, the fifth (21-25) group shows that the respondents 'agree' and 'strongly agree' at a total of 41.6%. In contrast, a total of 62.5% of respondents in the sixth experience group (over 26 years) 'strongly disagree' and 'disagree' that the other countries' crises had a bad impact on the Libyan economy. Ultimately, regarding the Lickert scale method it can be noted that there is no significant answer that non-performing loans in the Libyan state-owned commercial banking sector had emerged because of the economic and financial crises which erupted in other countries.

As to the vertical distribution of the answers to the experience groups, for instance in the case of 'strongly disagree' criteria, it can be seen that the highest percentages of the respondents' distribution are 33.3%, related to the group less than 5 and 22.2% related to each of the groups 6-10 and over 26. Additionally, regarding the criteria of 'disagree', 21.7%, 26.1% and 34.8% are the highest percentages of the respondents' distribution, related to the groups 6-10, 16-20 and over 26. On the other hand, the respondents are equally distributed among the groups less than 5 and 6-10 at the percentage of 23.1% for each group regarding the 'agree' criteria. Moreover, regarding the 'strongly agree' criteria, the respondents are equally concentrated among the groups 6-10 and 21-25 at the percentage of 50% for each group.

Table 7. 83: Cross-tabulation of the Impact of the International Sanctions with the Respondent's Experience

			The impact of the international sanctions imposed by the international community on Libya (ISL)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	1	1	3	8	3	16
		% within Experience	6.3%	6.3%	18.8%	50.0%	18.8%	100%
		% within ISL	20.0%	7.7%	23.1%	19.0%	18.8%	18.0%
	6-10	Count	0	3	2	9	5	19
		% within Experience	.0%	15.8%	10.5%	47.4%	26.3%	100%
		% within ISL	.0%	23.1%	15.4%	21.4%	31.3%	21.3%
	11-15	Count	1	1	2	3	2	9
		% within Experience	11.1%	11.1%	22.2%	33.3%	22.2%	100%
		% within ISL	20.0%	7.7%	15.4%	7.1%	12.5%	10.1%
	16-20	Count	1	5	1	7	3	17
		% within Experience	5.9%	29.4%	5.9%	41.2%	17.6%	100%
		% within ISL	20.0%	38.5%	7.7%	16.7%	18.8%	19.1%
	21-25	Count	0	2	3	5	2	12
		% within Experience	.0%	16.7%	25.0%	41.7%	16.7%	100%
		% within ISL	.0%	15.4%	23.1%	11.9%	12.5%	13.5%
	Over 26	Count	2	1	2	10	1	16
		% within Experience	12.5%	6.3%	12.5%	62.5%	6.3%	100%
		% within ISL	40.0%	7.7%	15.4%	23.8%	6.3%	18.0%
Total		Count	5	13	13	42	16	89
		% within Experience	5.6%	14.6%	14.6%	47.2%	18.0%	100%
		% within ISL	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.843(a)	20	.838
Likelihood Ratio	15.324	20	.758
Linear-by-Linear Association	1.025	1	.311
N of Valid Cases	89		

a. 25 cells (83.3%) have expected count less than 5. The minimum expected count is .51.

Table 7.83 shows the cross-tabulation between the respondent's experience and whether the problem of non-performing loans emerged in the Libyan state-owned commercial banks because of the impact of sanctions imposed by the international community on Libya. As can be seen, Chi-square level is 0.838, which is higher than the significance level of 0.05, which emphasises that there is no statistically significant relationship between the two variables

As a result, it can be seen that, for 'agree' and 'strongly agree' criteria, the second group (6-10 years) had recorded the highest proportion at a total of 73.7%, while the first group (less than 5 years) and the sixth group (over 26 years) came in joint second place and recorded the same percentage, which is 68.8%. Also, the third group (11-15 years) was ranked as the last group which recorded 55.5% after the fifth group (21-25 years) with the percentage of 58.4% and the fourth group (16-20 years) with the percentage of 58.8%. Furthermore, it can be noted that the total of 65.2% of the respondents 'agree' and 'strongly agree' that international sanctions imposed on the Libyan economy led to non-performing loans. Ultimately, although all the respondents have similar views, which are relevant to 'agree' and 'strongly agree', however, it can be noted that the respondents' views are in different proportions which are not related to the experience factor. Since expressed opinions are in a state of convergence, the differences in the experiences of the respondents in relation to the answers given to this variable are not statistically significant.

In terms of vertical analysis, with regards to the 'strongly disagree' criteria, it can be seen that the highest percentage of the respondents' distribution is 40%, which relates to the over 26 group. Furthermore, regarding the 'disagree' criteria; the highest percentages of the respondents' distribution are 23.1% and 38.5%, which related to the groups 6-10 and 16-20 respectively. The respondents are distributed among the groups 6-10 and over 26 as the highest by the percentages of 21.4% and 23.8% respectively. Moreover, it can be noted that 31.3% of the respondents are concentrated among the group 6-10 as the highest regarding the 'strongly agree' criteria.

In summarising the entire results, mean ranking of each of these factor groups is provided in table 7.84. In other words, representative mean value from mean ranking of each section was calculated to find which factor group is given the higher explanatory power by the respondents.

7.6. CONCLUSION

This chapter attempted to analyze the factors leading to non-performing loans according to the perceptions and opinions of the participants. These factors, in terms of the circumstances which had led to the emergence of non-performing loans in the Libyan state-owned commercial banks, are divided into several groups of factors. Those groups are in the form of lender-related reasons (bank), collateral-related reasons, borrower-related reasons (client) and the general conditions-related reasons (internal and external factors).

According to the analysis presented in the preceding sections, it is clear that the majority of reasons contained in the questionnaires had led to non-performing loans in the Libyan state-owned commercial banks as expressed by individual participants. Therefore, it can be stated that the bank-related reasons that led to non-performing loans in the Libyan state-owned commercial banks are:

(1) The shortcomings in the follow-up of the loans granted by the follow-up of the borrower activity;

(2) Using personal relationships in the process of granting loans;

(3) The lack of clear and written loan policy; and

(4) The weakness in the use of financial analysis methods for the early detection of non-performing loans.

However, some respondents do not agree that the other reasons which are related to the lender caused non-performing loans, which are:

(1) Granting a large proportion of loans and credit facilities to a small number of borrowers; and

(2) Allowing the borrower to use the loan amount before completing the loan file with the required documents.

In terms of the reasons related to the collateral provided by the borrower, the previous analysis shows that the most factors, which had led to non-performing loans, are the exposure of some types of collateral to the shortfall in its value with the passage of time. Hence, this shortfall led to the inability to recover the loans value, which then led to the emergence of non-performing loans. Also, the respondents agreed that non-performing loans had emerged by the difficulty in converting some types of collateral into liquidity and overestimation of the collateral value. In contrast, respondents rejected that there was the possibility to the borrower to use part or the full amount of the collateral provided to the lender before the process of re-payment of their obligations.

In terms of the reasons that led to non-performing loans related to the borrowers, it can be noted that most of the respondents agree that all reasons set out in the questionnaire had caused non-performing loans in the Libyan state-owned commercial banks. Therefore, the respondents accepted that the low level of administrative, financial and technical experience of the borrower to manage the funds borrowed. Moreover, the low levels of financial feasibility studies submitted by the borrower are indicated as the greatest borrower-related reason that had led to non-performing loans.

Generally, the general environment-related reasons that led to non-performing loans in the Libyan state-owned commercial banks are divided into local conditions (internal factors) and international conditions (external factors). In terms of the internal factors, the respondents were agreed that the majority of local conditions-related reasons which appeared in the questionnaire caused non-performing loans. Thus, the greater reason that had led to non-performing loans are in the form of the liquidation process of some projects financed by loans and the difficulty to collect the loans that had been granted to public sector projects. On the other hand, in terms of the external factors, the respondents were neutral that the crises that erupted in other countries had caused non-performing loans in the Libyan state-owned commercial banks. However, the respondents agreed that the impact of the sanctions imposed by the international community on Libya had led to non-performing loans.

In summarizing the entire results, mean ranking of each of these factor groups is provided in Table 7.84. In other words, representative mean value from mean ranking of each section was calculated to find which factor group is given the highest explanatory power by the respondents. This implies that mean values of each of the following tables from each factor sections were calculated and presented in Table 7.84: 7.13, 7.35, 7.47, 7.65 and 7.81. The means of each group then ranked from highest mean to the lowest to identify the importance level given to each group of factors.

Table 7. 84: Representative Mean Value from Each Factor Group Caused Non-Performing Loans in Libyan State-Owned Commercial Banks

	Factor Groups	**Mean ranking**
1	Borrower-related reasons	4.0393
2	Bank-related reasons	3.8043
3	Local conditions-related reasons	3.7739
4	Collateral-related reasons	3.7348
5	International conditions-related reasons	3.2247

As can be seen from Table 7.84, borrower-related factors scored the highest mean value indicating that the participants consider borrower-related factors as the most important cause of non-performing loans in Libyan state-owned commercial banking (with mean value of 4.04). The second most important reason is considered to be bank-related reasons, which scored a representative mean value of 3.8. This is followed by local conditions-related (with mean value of 3.78) and collateral-related factors (with mean value of 3.74) groups, respectively. However, the respondents seems to consider international conditions-related factors not as significant as the others, and which scored representative mean value of 3.2, which is still higher than neutral answer, and hence carries an important significance.

Chapter 8

IDENTIFYING THE STRATEGIES TO OVERCOME THE NON-PERFORMING LOANS PROBLEM IN LIBYAN STATE-OWNED COMMERCIAL BANKS: EMPIRICAL RESULTS

8.1. INTRODUCTION

This study aims to locate the reasons of non-performing loans in Libyan state-owned commercial banking. However, one of the objectives is also to search for alternative strategies to overcome the problem. For this, Chapter 3 discusses that there are a number of ways to deal with non-performing loans. Therefore, this chapter attempts to analyse the primary data that has been collected by using the questionnaire method, related to the appropriate ways, which can be used in order to address non-performing loans in Libyan state-owned commercial banks through the perceptions of the commercial bank personnel. In doing so, descriptive analysis and cross-tabulation methods have been used in terms of analysing data which has been collected by using questionnaire technique.

8.2. IDENTIFING THE APPROPRIATE WAYS TO DEAL WITH NON-PERFORMING LOANS

This section aims to provide the results of the analysis based on the perceptions of the participants regarding the ways they think non-performing loans as a problem can be overcome. Initially, descriptive analysis is provided, which is followed by cross-tabulation analysis to identify variances in the perceptions through some demographic factors.

8.2.1. Perceptions on Possible Solutions

In this section, initially the participants were asked to express their opinions regarding flotation in terms of debt rescheduling, waiving part of the accrued interest or reduce the interest rates to facilitate the pay-back of the loan to prevent the emergence of the non-performing loans problem in Libyan state-owned commercial banks.

Table 8. 1: Opinions on Flotation

			Frequency	Percent
Valid	1	Strongly Disagree	1	1.1
	2	Disagree	2	2.2
	3	Neutral	9	10.1
	4	Agree	47	52.8
	5	Strongly Agree	30	33.7
		Total	89	100.0
Mean		4.1573		

The first potential solution suggested to the participants was 'flotation' which in terms of debt rescheduling, waiving part of the accrued interest or reduce the interest rate. From table 8.1 it can be seen that 52.8% of the respondents 'agree' to use the flotation method to treat non-performing loans in Libyan state-owned commercial banks. Also, it can be seen that 33.7% of the respondents 'strongly agree' to use the flotation methods. As a result, it can be observed that 86.5% of respondents 'agree' to use this method (flotation) to prevent the occurring of non-performing loans. Accordingly, this result is evidenced by the mean value of 4, which corresponds to the 'agree' group. As an effective method, the flotation method can be conducted in several ways such as, rescheduling debt, waiving part of the accrued interest or reducing the interest rate.

Debit capitalisation and/or providing financial and marketing consultations are considered as the methods which may be used to deal with non-performing loans in the event of the appearance of such loans. Therefore, the participants were asked their views regarding capitalisation or provision of financial and marketing consultations to the non-performing projects financed by the loans that emerged in Libyan state-owned commercial banks, the results of which are depicted in Table 8.2.

Table 8. 2: Debt Capitalisation or Providing Financial and Marketing Consultations

			Frequency	Percent
Valid	1	Strongly Disagree	0.0	0.0
	2	Disagree	4	4.5
	3	Neutral	18	20.2
	4	Agree	54	60.7
	5	Strongly Agree	13	14.6
		Total	89	100.0
Mean		3.8539		

Table 8.2 shows that 60.7% of the respondents 'agree' to use debt capitalisation or providing financial and marketing consultations as methods to treat non-performing loans in Libyan state-owned commercial banks. It can also be noted that 14.6% of the respondents 'strongly agree' to use this methods. Thus, the majority is in favour of using this method to overcome the non-performing loans problem in the commercial banking system in Libya. However, it can also be seen that 20.2% of the respondents were neutral to treating non-performing loans by using the methods in question. Regardless of this it is clear that 75.3% of respondents were in favour of using these methods to deal with non-performing loans in the Libya state-owned commercial banking sector. This result is evidenced by the mean value of approximately 4, which corresponds to the 'agree' group.

Reviving the non-performing projects through additional cash injection is considered as one of the methods which can be used in order to treat non-performing loans. Therefore, the respondents involved in this study were asked for their views regarding the possibility of using the technique of injecting additional cash in order to deal with non-performing loans appearing in the Libyan state-owned commercial banking sector, and the results are depicted in Table 8.3.

Table 8. 3: Reviving the Financed Project through Additional Cash Injection

			Frequency	Percent
Valid	1	Strongly Disagree	5	5.6
	2	Disagree	16	18.0
	3	Neutral	14	15.7
	4	Agree	47	52.8
	5	Strongly Agree	7	7.9
		Total	89	100.0
Mean		3.3933		

Table 8.3 demonstrates that 52.8% of the respondents 'agreed' to deal with non-performing loans by applying the cash injection method to the non-performing projects. Together with 'agree' and 'strongly agree' groups, the majority (60.7%) of the respondents are in favour of using this method. It is also the case that 23.6% of the respondents 'disagree' and 'strongly disagree' to revive non-performing projects which were funded by loans through additional cash injection. This result is evidenced by the mean value of 3.4, which corresponds to the neutral group.

In searching for potential areas of overcoming the non-performing loans, the participants were asked their opinions whether they would consider integration of the non-performing project with other projects as an appropriate solution. As shown in table 8.4, 37.1% of the respondents agree in terms of the integration of the non-performing project with other projects to address the non-performing loans in Libyan state-owned commercial banks. With 'strongly agree' option 7.9%, 45% of the participants is in favour of this option. On the other hand, it can be seen that 33.7% of the respondents 'disagree' to use the method mentioned in the above table to deal with non-performing loans. As a result, it can be said that the respondents were close to be neutral to use the method of integrating non-performing projects with other projects as an appropriate way to address non-performing loans in Libyan state-owned commercial banks. Accordingly, this result is further supported by the mean value of 3.2, which corresponds to the neutral group.

Table 8. 4: Integration of the Non-Performing Project with other Projects

			Frequency	**Percent**
Valid	1	Strongly Disagree	1	1.1
	2	Disagree	30	33.7
	3	Neutral.	18	20.2
	4	Agree	33	37.1
	5	Strongly Agree	7	7.9
		Total	89	100.0
Mean		3.1685		

Despite the loss of part or all of the lenders' money in the event of writing-off loans, in some cases lenders may prefer to solve the problem of non-performing loans through writing-off these loans. Table 8.5 shows the respondents' views in terms of writing-off the non-performing loans as a method to treat non-performing loans in Libyan state-owned commercial banks.

Table 8. 5: Writing-off the Non-Performing Loans

			Frequency	**Percent**
Valid	1	Strongly Disagree	18	20.2
	2	Disagree	37	41.6
	3	Neutral	18	20.2
	4	Agree	16	18.0
	5	Strongly Agree	0.0	0.0
		Total	89	100.0
Mean		2.3596		

The results in table 8.5 indicate that 41.6% of the respondents 'disagree' to use the method of writing-off non-performing loans, which has emerged in Libyan state-owned commercial banks. Also, it can be observed that 20.2% of the respondents 'strongly disagreed' to use this method. As a result, it can be said that 61.8% are the total of disagreed respondents to consider that writing-off the non-performing loans is an appropriate method to deal with non-performing loans in Libyan state-owned commercial banks. Accordingly, it can be noted that the mean value is 2.3 which correspond to the 'disagree' group in terms of using this method to address non-performing loans.

Some countries resort to establish new institutions, which are specialized to buy the failed loans. Therefore, in this study, the participants were asked about their views on the establishment of a special institution to buy the non-performing loans that emerged in Libyan state-owned commercial banks.

Table 8. 6: Establishment of an Institution Specialising in the Buying of Non-Performing Loans

			Frequency	Percent
Valid	1	Strongly Disagree	8	9
	2	Disagree	16	18
	3	Neutral	7	7.9
	4	Agree	40	44.9
	5	Strongly Agree	18	20.2
		Total	89	100.0
Mean		3.4944		

Table 8.6 shows that 44.9% of the respondents 'agree' to establish an institution specialising in the buying of non-performing loans in Libyan state-owned commercial banks. Also, 20.2% of the respondents 'strongly agree' to use this method to deal with non-performing loans. Thus, majority of the respondents (65.1%) are in favour of establishing an institution specialising in the buying of non-performing loans. This is further evidenced with the mean score of 3.5, which is pointed towards 'agree' group.

Ultimately, liquidating the non-performing projects is considered as the last resort for the banks to recover their money, which is granted as loans and credit facilities in the confirmation of the inability of borrowers to repay their obligations. The respondents were asked their opinion on liquidating the non-performing projects financed by Libyan state-owned commercial banks.

Table 8. 7: Liquidation of the Non-Performing Projects

			Frequency	**Percent**
Valid	1	Strongly Disagree	6	6.7
	2	Disagree	21	23.6
	3	Neutral	18	20.2
	4	Agree	38	42.7
	5	Strongly Agree	6	6.7
		Total	89	100.0
Mean		3.1910		

Table 8.7 indicates that 42.7% of the respondents 'agreed' that the liquidation of non-performing loans is an appropriate way to deal with non-performing loans in the Libyan state-owned commercial banks. In addition, 23.6% of the respondents 'disagree' to use this method as an appropriate way to deal with the problem of non-performing loans. The combined 'strongly agree' and 'agree' groups total (49.4%) form a slight majority compared to the rest of the opinions. As a result, it can be said that the respondents tend to 'neutral' when considering the liquidation of the non-performing loans as an appropriate way to deal with non-performing loans in the Libyan state-owned commercial banks. This result is evidenced by the mean value of 3.2, which corresponds to the 'neutral' group.

Table 8.8 brings all the results of this section so far by presenting the mean ranking of the respondents' answers relating to the methods, which may be used to treat the non-performing loans in the Libyan state-owned commercial banks. Accordingly, it can be noted that the mean ranking of the methods are listed from the highest mean to the lowest.

Table 8. 8: Mean Ranking of the Methods Used to Deal with Non-Performing Loans

	Type of the Methods	Mean ranking
1	Flotation	4.1573
2	Capitalisation of the non-performing loans	3.8539
3	Establishment of an institution specialised in buying non-performing loans	3.4944
4	Inject cash to non-performing projects	3.3933
5	Liquidate the non-performing projects	3.1910
6	Integrate non-performing projects in other projects	3.1685
7	Writing-off the non-performing loans	2.3596

As can be seen from table 8.8, the respondents were agreed to use the methods of flotation and debt capitalisation or providing financial and marketing consultations, which ranked as the first and second, respectively. On the other hand, the respondents were neutral to set up an institution specialised in buying non-performing loans, injecting additional cash to non-performing projects, liquidating the non-performing clients and integrating the non-performing projects with others, which ranked as the third, fourth, fifth and sixth, respectively. Ultimately, the method of writing-off the non-performing loans ranked as the last, which represents that the respondents disagree to use this type of method.

8.2.2. Correlating Experience of the Respondents and the Potential Solutions to Non-Performing Loans: Cross-Tabulation Analysis

The bankers' experience plays an important role with regard to the operations of the banks, and therefore their opinions regarding the potential solutions are important. Regarding the methods which have been mentioned in order to deal with non-performing loans in the Libyan state-owned commercial banks, cross-tabulation analyses had been conducted to identify the relationship between two variables. Therefore, the following tables show the correlation between the bankers' experience and the possible ways which may be used to address the non-performing loans that emerged in the Libyan state-owned commercial banks.

Table 8.9 shows the cross-tabulation between the respondent's experience at job and whether the floatation method (debt rescheduling, waive part of the accrued interest or reduce the interest rate) is considered as an appropriate method to deal with non-performing loans. The chi-square score is 0.526, which is higher than the significance level 0.05; and hence, there is no statistically significant relationship between the two variables, null hypothesis cannot be rejected.

Table 8. 9: Cross-tabulation: Correlating Experience with Flotation as a Solution

			Flotation (debt rescheduling, waive part of the accrued interest or reduce the interest rate)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	0	1	3	7	5	16
		% within Experience	.0%	6.3%	18.8%	43.8%	31.3%	100%
		% within Flotation	.0%	50.0%	33.3%	14.9%	16.7%	18.0%
	6-10	Count	1	0	2	10	6	19
		% within Experience	5.3%	.0%	10.5%	52.6%	31.6%	100%
		% within Flotation	100.0%	.0%	22.2%	21.3%	20.0%	21.3%
	11-15	Count	0	0	1	5	3	9
		% within Experience	.0%	.0%	11.1%	55.6%	33.3%	100%
		% within Flotation	.0%	.0%	11.1%	10.6%	10.0%	10.1%
	16-20	Count	0	0	2	11	4	17
		% within Experience	.0%	.0%	11.8%	64.7%	23.5%	100%
		% within Flotation	.0%	.0%	22.2%	23.4%	13.3%	19.1%
	21-25	Count	0	0	1	9	2	12
		% within Experience	.0%	.0%	8.3%	75.0%	16.7%	100%
		% within Flotation	.0%	.0%	11.1%	19.1%	6.7%	13.5%
	Over 26	Count	0	1	0	5	10	16
		% within Experience	.0%	6.3%	.0%	31.3%	62.5%	100%
		% within Flotation	.0%	50.0%	.0%	10.6%	33.3%	18.0%
Total		Count	1	2	9	47	30	89
		% within Experience	1.1%	2.2%	10.1%	52.8%	33.7%	100%
		% within Flotation	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.931(a)	20	.526
Likelihood Ratio	19.843	20	.468
Linear-by-Linear Association	2.621	1	.105
N of Valid Cases	89		

a. 21 cells (70.0%) have expected count less than 5. The minimum expected count is .10.

Despite the non-statistically significant result, it can be noted that most of the respondents in each experience group have similar views regarding the flotation method. It should also be mentioned that there is a dramatic increase for the total percentage of Lickert scale which relates to the 'agree' and 'strongly agree' categories. As evidence of this result, the respondent's experience groups of 21-25 years and over 26 years have similar views, with 92% and 94%, respectively related to the flotation method as an appropriate way to deal with non-performing loans. Ultimately, it can be concluded that 86.5% of the staff members who participated in the questionnaire 'agree' and 'strongly agree' that flotation is considered as the most important method which may be used to treat non-performing loans that emerged in the Libyan state-owned commercial banks.

In addition, it can be seen that all of the respondents (100%) are concentrated in the group 6-10 years regarding to the strongly disagree criteria. Moreover, the respondents are equally distributed among the groups less than 5 years and over 26 years by 50% regarding to the 'disagree' criteria. On the other hand, regarding the 'agree' criteria, most of the respondents are distributed in the groups 16-20 years and 6-10 years by percentages of 23.4% and 21.3%, respectively. Furthermore, the respondents' distribution regarding the 'agree' criteria is 33.3% for the group over 26 years and 20% for the group 6-10 years.

Table 8. 10: Cross-tabulation: Correlating Experience and Debt Capitalised

			Debt capitalisation or providing financial and marketing consultations				
			Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	0	8	5	3	16
		% within Experience	.0%	50.0%	31.3%	18.8%	100%
		% within capitalisation	.0%	44.4%	9.3%	23.1%	18.0%
	6-10	Count	1	1	12	5	19
		% within Experience	5.3%	5.3%	63.2%	26.3%	100%
		% within capitalisation	25.0%	5.6%	22.2%	38.5%	21.3%
	11-15	Count	1	2	6	0	9
		% within Experience	11.1%	22.2%	66.7%	.0%	100%
		% within capitalisation	25.0%	11.1%	11.1%	.0%	10.1%
	16-20	Count	1	0	15	1	17
		% within Experience	5.9%	.0%	88.2%	5.9%	100%
		% within capitalisation	25.0%	.0%	27.8%	7.7%	19.1%
	21-25	Count	0	5	4	3	12
		% within Experience	.0%	41.7%	33.3%	25.0%	100%
		% within capitalisation	.0%	27.8%	7.4%	23.1%	13.5%
	Over 26	Count	1	2	12	1	16
		% within Experience	6.3%	12.5%	75.0%	6.3%	100%
		% within capitalisation	25.0%	11.1%	22.2%	7.7%	18.0%
Total		Count	4	18	54	13	89
		% within Experience	4.5%	20.2%	60.7%	14.6%	100%
		% within capitalisation	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.443(a)	15	.010
Likelihood Ratio	34.874	15	.003
Linear-by-Linear Association	.001	1	.970
N of Valid Cases	89		

a. 18 cells (75.0%) have expected count less than 5. The minimum expected count is .40.

Table 8.10 shows the correlation between the respondent's experience and whether the method of debt capitalisation or providing financial and marketing consultations are the appropriate methods to be used for the Libyan state-owned commercial banks to treat non-performing loans. As the result shows, there is a statistically significant relationship between the two variables due to the chi-square level of 0.010 (which is less than the customary level 0.05) and, therefore, we can reject the null hypothesis that the two variables are independent implying that there is a close correlation between the two variables.

Generally, most of the respondents in each experience group have similar views regarding the use of capitalization or consultation methods to treat non-performing loans. However, it can be noted that there is an asymmetry in the responses shown above in each experience group *i.e.* 'agree' and 'strongly agree'. For example, 50% of the respondents in the first experience group (less than 5 years) are neutral, which is very close to the total of 'agree' and 'strongly agree' which recorded 50.1%. Also, the second group (6-10 years) 'agree' and 'strongly agree' by total of 89.5%, which is higher than the first group. The third group (11-15 years) recorded that 66.7% of the respondents 'agree', which is less than the percentage recorded in the second group. On the other hand, the fourth group (16-20 years) recorded the highest percentage (95%), as 'agree' and 'strongly agree'. The fifth group (21-25 years) recorded a significant drop for 'agree' and 'strongly agree' of 58.3% compared with the fourth group. The sixth group (over 26 years), which is the more experienced group came in the third place in terms of 'agree' and 'strongly agree' by total of 81.3%. Finally, a total of 75.3% of the respondents 'agree' and 'strongly agree' that the method mentioned in the previous table could be used to solve the problem of non-performing loans, which emerged in the Libyan state-owned commercial banks.

Regarding the 'disagree criteria', the respondents distributed equally '25%' among the groups 6-10, 11-15, 16-20 and over 26. On the other hand, 27.8% of the respondents in the 16-20 group chose the 'agree' criteria. Moreover, respondents' distribution is 22.2% for each of the 6-10 and over 26 groups. In addition, regarding the 'strongly agree' criteria, it can be seen that 38.5% of the respondents are distributed in the group 6-10 and 23.1% in the group less than 5 and 21-25 alike.

Table 8. 11: Cross-tabulation: Correlating Experience with Cash Injection

			Reviving the financed project through additional cash injection					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	1	3	3	8	1	16
		% within Experience	6.3%	18.8%	18.8%	50.0%	6.3%	100%
		% within cash injection	20.0%	18.8%	21.4%	17.0%	14.3%	18.0%
	6-10	Count	1	2	1	11	4	19
		% within Experience	5.3%	10.5%	5.3%	57.9%	21.1%	100%
		% within cash injection	20.0%	12.5%	7.1%	23.4%	57.1%	21.3%
	11-15	Count	1	0	3	5	0	9
		% within Experience	11.1%	.0%	33.3%	55.6%	.0%	100%
		% within cash injection	20.0%	.0%	21.4%	10.6%	.0%	10.1%
	16-20	Count	1	1	4	11	0	17
		% within Experience	5.9%	5.9%	23.5%	64.7%	.0%	100%
		% within cash injection	20.0%	6.3%	28.6%	23.4%	.0%	19.1%
	21-25	Count	0	2	2	7	1	12
		% within Experience	.0%	16.7%	16.7%	58.3%	8.3%	100%
		% within cash injection	.0%	12.5%	14.3%	14.9%	14.3%	13.5%
	Over 26	Count	1	8	1	5	1	16
		% within Experience	6.3%	50.0%	6.3%	31.3%	6.3%	100%
		% within cash injection	20.0%	50.0%	7.1%	10.6%	14.3%	18.0%
Total		Count	5	16	14	47	7	89
		% within Experience	5.6%	18.0%	15.7%	52.8%	7.9%	100%
		% within cash injection	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.104(a)	20	.132
Likelihood Ratio	28.013	20	.109
Linear-by-Linear Association	2.382	1	.123
N of Valid Cases	89		

a. 25 cells (83.3%) have expected count less than 5. The minimum expected count is .51.

Table 8.11 shows the cross-tabulation between the respondent's experiences and whether the process of reviving the faltering projects by injecting additional cash is considered as an appropriate method to deal with non-performing loans in the Libyan state-owned commercial banks. It can be seen that the chi-square score is 0.132, which is higher than the significant level 0.05. Accordingly, it can be said that there is no statistically significant relationship between the two variables.

On the one hand, 60% of the respondents 'agree' and 'strongly agree' to inject more cash in order to treat non-performing loans. On the other hand, the sixth group (over 26 years) showed that 56.3% of the respondents 'strongly disagree' and 'disagree' to use this type of methods. Additionally, it can be noted that total of 74% of the respondents in the second experience group (6-10 years) is considered as the highest group to 'agree' and 'strongly agree' to inject more funds to revive the non-performing projects. Furthermore, 66.6% of the respondents in the fifth group (21-25 years) 'agree' and 'strongly agree' to revive the faltering projects by cash injecting.

In addition, regarding the criteria of 'strongly disagree', it can be seen that the respondents are distributed equally among the groups less than 5, 6-10, 11-15, 16-20 and over 26 by 20% for each group. Furthermore, it can be noted that 50% of the respondents are distributed in the group over 26 regarding the 'disagree criteria', which is the highest. On the other hand, respondents' distribution regarding the 'agree' criteria is 13.4% relating to the groups 6-10 and 16-20 alike. Furthermore, the majority of the respondents distributed in the 'strongly agree' category are concentrated in the group 6-10 by percentage of 57.1%.

Table 8. 12: Cross-tabulation: Correlating Experience with Integration of Non-Performing Projects with other Projects

			Integration of the non-performing project with other projects					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	0	7	2	4	3	16
		% within Experience	.0%	43.8%	12.5%	25.0%	18.8%	100%
		% within integration	.0%	23.3%	11.1%	12.1%	42.9%	18.0%
	6-10	Count	0	4	1	12	2	19
		% within Experience	.0%	21.1%	5.3%	63.2%	10.5%	100%
		% within integration	.0%	13.3%	5.6%	36.4%	28.6%	21.3%
	11-15	Count	0	2	4	3	0	9
		% within Experience	.0%	22.2%	44.4%	33.3%	.0%	100%
		% within integration	.0%	6.7%	22.2%	9.1%	.0%	10.1%
	16-20	Count	1	5	5	4	2	17
		% within Experience	5.9%	29.4%	29.4%	23.5%	11.8%	100%
		% within integration	100.0%	16.7%	27.8%	12.1%	28.6%	19.1%
	21-25	Count	0	2	4	6	0	12
		% within Experience	.0%	16.7%	33.3%	50.0%	.0%	100%
		% within integration	.0%	6.7%	22.2%	18.2%	.0%	13.5%
	Over 26	Count	0	10	2	4	0	16
		% within Experience	.0%	62.5%	12.5%	25.0%	.0%	100%
		% within integration	.0%	33.3%	11.1%	12.1%	.0%	18.0%
Total		Count	1	30	18	33	7	89
		% within Experience	1.1%	33.7%	20.2%	37.1%	7.9%	100%
		% within integration	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.398(a)	20	.064
Likelihood Ratio	30.971	20	.056
Linear-by-Linear Association	3.851	1	.050
N of Valid Cases	89		

a. 22 cells (73.3%) have expected count less than 5. The minimum expected count is .10.

Table 8.12 shows the cross-tabulation between the respondent's experience and whether the projects integration is considered as an appropriate way to treat non-performing loans in the Libyan state-owned commercial banks. As the results in table 8.12 shows the Chi-square level is 0.064, which is slightly higher than the customary level 0.05. Accordingly, it can be said that there is no statistically significant correlation between the two variables and we can not reject the null hypothesis that the two variables are independent. However, by slightly reducing the confidence level, the result can be acceptable, and therefore null hypothesis can be rejected indicating that there is a relationship between the experience and the nature of the expressed opinions between project integration as a way out.

As evident, it can be seen that the respondents in each experience group have different views regarding integrating non-performing projects with other projects in order to treat non-performing loans. For example, the first experience group (less than 5 years) shows that 44% of the respondents 'disagree' and the total of 44% 'agree' and 'strongly agree' to use this type of treatment. The second experience group (6-10 years) shows that 74% of the respondents 'agree 'and 'strongly agree'. Furthermore, the views of 44.4% of the respondents in the third group (11-15 years) were neutral to integrate the non-performing projects with others. Furthermore, a total of 35.3% of the respondents consensus in the fourth group (16-20 years) 'strongly disagree' and 'disagree' to deal with the non-performing projects by using the integration method, while another total of 35.3% 'agree' and 'strongly agree' to follow this method. 50% of the respondents in the fifth experience group (21-25 years) agree to integrate faltering projects with the successful projects. In contrast, it can be seen that 62.5% of the respondents in the sixth group (over 26 years) 'disagree' to use the integration technique as an optimal way to deal with non-performing loans in the Libyan state-owned commercial banks. Ultimately, it can be concluded that there is no consensus between the respondents, since each experience group has a different view in comparison to the other group on Lickert scale method.

Regarding those who 'strongly disagree', it can be seen that 100% of the respondents are concentrated in the 16-20 years group. Furthermore, the distribution of the respondents who 'disagree' is 33.3% for the group less than 5 years and 23.3% for the group over 26 years. On the other hand, it can be noted that the highest distribution of the respondents who 'agree' is 36.4% among the group 6-10. In addition, the respondents' distribution regarding those who 'strongly agree' is 42.9% relating to the group less than 5 years and 28.6% related to each of the groups 6-10 and 16-20.

Table 8. 13: Cross-tabulation: Correlating Experience with Writing-off Non-Performing Loans

			Writing-off the non-performing loans				
			Strongly disagree	Disagree	Neutral	Agree	Total
Experience (Years)	Less than 5	Count	3	8	2	3	16
		% within Experience	18.8%	50.0%	12.5%	18.8%	100%
		% within Writing-off the NPLs	16.7%	21.6%	11.1%	18.8%	18.0%
	6-10	Count	4	8	5	2	19
		% within Experience	21.1%	42.1%	26.3%	10.5%	100%
		% within Writing-off the NPLs	22.2%	21.6%	27.8%	12.5%	21.3%
	11-15	Count	0	3	2	4	9
		% within Experience	.0%	33.3%	22.2%	44.4%	100%
		% within Writing-off the NPLs	.0%	8.1%	11.1%	25.0%	10.1%
	16-20	Count	2	6	3	6	17
		% within Experience	11.8%	35.3%	17.6%	35.3%	100%
		% within Writing-off the NPLs	11.1%	16.2%	16.7%	37.5%	19.1%
	21-25	Count	4	3	4	1	12
		% within Experience	33.3%	25.0%	33.3%	8.3%	100%
		% within Writing-off the NPLs	22.2%	8.1%	22.2%	6.3%	13.5%
	Over 26	Count	5	9	2	0	16
		% within Experience	31.3%	56.3%	12.5%	.0%	100%
		% within Writing-off the NPLs	27.8%	24.3%	11.1%	.0%	18.0%
Total		Count	18	37	18	16	89
		% within Experience	20.2%	41.6%	20.2%	18.0%	100%
		% within Writing-off the NPLs	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.449(a)	15	.194
Likelihood Ratio	22.554	15	.094
Linear-by-Linear Association	1.540	1	.215
N of Valid Cases	89		

a. 20 cells (83.3%) have expected count less than 5. The minimum expected count is 1.62.

Table 8.13 shows the cross-tabulation between the respondent's experience and their opinion on using the method of writing-off non-performing loans as an appropriate way to deal with the problem of non-performing loans in the Libyan state-owned commercial banks. Chi-square level is 0.194, which is higher than the statistical significant level of 0.05, so, it can be said that there is no statistically significant correlation between the two variables and the null hypothesis cannot be rejected.

In examining the given responses, it can be seen that 62% of the respondents 'strongly disagree' and 'disagree' to write-off non-performing loans. However, it can be noted that this result does not have a relationship with the respondent's experience over Lickert scale. As is evident, the sixth experience group (over 26 years) is placed as the highest group which recorded 87.6% of the respondent's views as 'strongly disagree' and 'disagree' to write-off non-performing loans. The groups of less than 5 years and 6-10 years ranked as the second and the third respectively in terms of the percentage related to the respondent's views which recorded total of 69% and total of 63.2% as 'strongly disagree' and 'disagree' to use this type of methods to treat non-performing loans. Moreover, the experience groups 21-25 years and 16-20 years ranked as the fourth and the fifth respectively in terms of the percentage related to the respondent's views, which recorded 58.3% and total of 47.1% 'strongly disagree' and 'disagree' to write-off non-performing loans respectively. In contrast, 44.4% of the respondent's views in the experience group 11-15 years 'agree' to write-off non-performing loans in the Libyan state-owned commercial banks.

In addition, respondents' distribution relating to the 'strongly disagree' criteria is 27.8% among the over 26 group and 22.2% for each of the groups 6-20 and 21-25. Furthermore, respondents' distribution regarding the 'disagree criteria' is 24.3% among the group over 26 and 21.6% for each of the groups less than 5 and 6-10. On the other hand, it can be seen that the highest respondents' distribution regarding the 'agree' criteria is 37.5% and 25% related to the groups 16-20 years and 11-15 years, respectively.

Table 8. 14: Cross-tabulation: Correlating Experience with Establishing an Institution Specialising in Buying Non-Performing Loans

			Establishment of an institution specializing in the buying of non-performing loans (EI)					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	1	4	3	7	1	16
		% within Experience	6.3%	25.0%	18.8%	43.8%	6.3%	100%
		% within	12.5%	25.0%	42.9%	17.5%	5.6%	18.0%
	6-10	Count	0	6	1	9	3	19
		% within Experience	.0%	31.6%	5.3%	47.4%	15.8%	100%
		% within EI	.0%	37.5%	14.3%	22.5%	16.7%	21.3%
	11-15	Count	0	1	1	4	3	9
		% within Experience	.0%	11.1%	11.1%	44.4%	33.3%	100%
		% within EI	.0%	6.3%	14.3%	10.0%	16.7%	10.1%
	16-20	Count	1	0	1	7	8	17
		% within Experience	5.9%	.0%	5.9%	41.2%	47.1%	100%
		% within EI	12.5%	.0%	14.3%	17.5%	44.4%	19.1%
	21-25	Count	3	2	1	5	1	12
		% within Experience	25.0%	16.7%	8.3%	41.7%	8.3%	100%
		% within EI	37.5%	12.5%	14.3%	12.5%	5.6%	13.5%
	Over 26	Count	3	3	0	8	2	16
		% within Experience	18.8%	18.8%	.0%	50.0%	12.5%	100%
		% within EI	37.5%	18.8%	.0%	20.0%	11.1%	18.0%
Total		Count	8	16	7	40	18	89
		% within Experience	9.0%	18.0%	7.9%	44.9%	20.2%	100%
		% within EI	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.757(a)	20	.115
Likelihood Ratio	31.175	20	.053
Linear-by-Linear Association	.077	1	.781
N of Valid Cases	89		

a. 25 cells (83.3%) have expected count less than 5. The minimum expected count is .71.

Table 8.14 shows the cross-tabulation between the respondent's experience and their perception regarding establishment of a new institution, specialised to buy non-performing loans as an appropriate way to solve this type of loans that emerged in the Libyan state-owned commercial banks. Since Chi-square level is 0.115 is higher than the significance level 0.05, it can be said that there is no statistically significant relationship between the two variables, and we can not reject the null hypothesis.

As a result, 65.1% of the respondents in each experience group 'agree' and 'strongly agree' to establish this type of institution to treat non-performing loans. In addition, it can be seen that the respondents in each experience group have similar views regarding the sale of non-performing loans to a special institution. Furthermore, it can be noted that the percentage of respondent's views increased dramatically in the second group (6-10 years), third group (11-16 years) and fourth group (16-20 years) relating to 'agree' and 'strongly agree' which recorded totals of 63.2%, 78% and 88.3% respectively. On the other hand, the fifth experience group (21-26 years) has decreased dramatically to reach 50% in total for 'agree' and 'strongly agree'. Finally, the sixth experience group (over 26 years) has slightly increased to reach 62.5% in total for 'agree' and 'strongly agree'. Despite all these, there is no particular relationship between the respondent's experience and their views, and therefore it could be concluded that the respondents 'agree' to a certain extent to treat non-performing loans which emerged in the Libyan state-owned commercial banks by establishment of a new institution specialised in buying these types of loans.

According to the 'strongly disagree' criteria, it can be observed that the highest respondents' distribution is equally concentrated in the groups of 21-25 and over 26 by the percentage of 37.5% for such groups. Moreover, the respondents' distribution regarding the 'disagree' criteria is 37.5% and 25% related to the groups 6-10 and less than 5, respectively. On the other hand, the highest distribution of the respondents regarding the 'agree' criteria was 20% for each of the groups 6-10 and over 26. Also, the majority of the respondents were concentrated in the group 16-20 at 44.4%.

Table 8. 15: Cross-tabulation: Correlating Experience with Liquidation

			Liquidation of the non-performing clients					
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Experience (Years)	Less than 5	Count	2	4	3	6	1	16
		% within Experience	12.5%	25.0%	18.8%	37.5%	6.3%	100%
		% within Liquidation	33.3%	19.0%	16.7%	15.8%	16.7%	18.0%
	6-10	Count	2	2	8	6	1	19
		% within Experience	10.5%	10.5%	42.1%	31.6%	5.3%	100%
		% within Liquidation	33.3%	9.5%	44.4%	15.8%	16.7%	21.3%
	11-15	Count	0	2	2	4	1	9
		% within Experience	.0%	22.2%	22.2%	44.4%	11.1%	100 %
		% within Liquidation	.0%	9.5%	11.1%	10.5%	16.7%	10.1%
	16-20	Count	0	1	1	13	2	17
		% within Experience	.0%	5.9%	5.9%	76.5%	11.8%	100%
		% within Liquidation	.0%	4.8%	5.6%	34.2%	33.3%	19.1%
	21-25	Count	2	3	1	5	1	12
		% within Experience	16.7%	25.0%	8.3%	41.7%	8.3%	100%
		% within Liquidation	33.3%	14.3%	5.6%	13.2%	16.7%	13.5%
	Over 26	Count	0	9	3	4	0	16
		% within Experience	.0%	56.3%	18.8%	25.0%	.0%	100%
		% within Liquidation	.0%	42.9%	16.7%	10.5%	.0%	18.0%
Total		Count	6	21	18	38	6	89
		% within Experience	6.7%	23.6%	20.2%	42.7%	6.7%	100%
		% within Liquidation	100%	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	32.249(a)	20	.041
Likelihood Ratio	33.804	20	.027
Linear-by-Linear Association	.210	1	.647
N of Valid Cases	89		

a. 25 cells (83.3%) have expected count less than 5. The minimum expected count is .61.

Table 8.15 shows the cross-tabulation between the seniority of the staff members who participated in the answering of the questionnaire and the possibility of using the method of the liquidation of non-performing clients in order to treat non-performing loans that have emerged in the Libyan state-owned commercial banks. The Chi-square level is 0.041, which is lower than the customary level 0.05. As a result it can be said that there is a statistically significant relationship between the two variables, and we can reject the null hypothesis that the two variables are independent.

In general, it can be seen that there is no significant result regarding the total experience groups due to the low percentage of the respondent's views (30.3% strongly disagree and disagree, 20.2% neutral and 49.4% agree and strongly agree). On the other hand, as the table shows that with the higher experience groups (16-20, 21-25 and over 26 years) support for this option dramatically decreased regarding the views of the staff members. In addition, it can be noted that the fourth experience group is the highest compared with the other groups, which recorded a total of 88.3% 'agree' and 'strongly agree', and the fifth experience group dropped to reach 50% 'agree' and 'strongly agree'. On the other hand, the respondent's views related to the sixth group tended towards 'strongly disagree' and 'disagree' to liquidate non-performing projects to solve the problem of non-performing loans that have emerged in the Libyan state-owned commercial banks.

In addition, it can be seen that the respondents' distribution regarding the 'strongly disagree' criteria is equally concentrated in the groups less than 5, 6-10 and 21-25 by percentage of 33.3% for such groups. Furthermore, 42.9% of the respondents concentrated in the group over 26, which is the highest regarding the 'disagree' criteria. On the other hand, it can be noted that the highest distribution of the respondents concentrated in the group 16-20 by the percentage of 34.2% related to 'agree' criteria and 33.3% related to 'strongly agree'.

8.3. CONCLUSION

This chapter presents the empirical results related to the methods, which might be used as a solution to address the problem of non-performing loans that emerged in the Libyan state-owned commercial banks. Therefore, descriptive analysis has been conducted in order to present the respondents' views in terms of treating the problem of non-performing loans. Moreover, cross-tabulation analysis has been conducted to present the correlation between the bankers' opinions with the methods which could be used to solve the problem of non-performing loans in the Libyan state-owned commercial banks.

It can be concluded that the respondents had chosen appropriate ways in order to remedy the non-performing loans in the Libyan state-owned commercial banks. The highest support given by the respondents is to the floating method (debt rescheduling, waiving part of the accrued interest or reducing the interest rate) and the method of debt capitalisation or providing financial and marketing consultations to overcome the non-performing loans; and certain support was given to the establishment of an institution specialised in buying non-performing loans. However, participants disagreed to write-off the non-performing loans. It should also be noted that the other methods mentioned in the questionnaire have not received as much attention by the respondents to use, such as injecting cash to non-performing projects, liquidating the non-performing projects and integrating the non-performing projects in other projects.

According to the cross-tabulation analyses conducted in this chapter regarding the relationship between the respondents' experience and the methods, which could be used to solve the non-performing loans in the Libyan state-owned commercial banks, there is no statistically significant relationship between most of methods, which are used to solve non-performing loans and the participants' experience. However, respondents' experiences produced statistically significant correlation with the techniques of debt capitalisation and the liquidation of the non-performing projects.

Chapter 9

PERCEPTIONS ON NON-PERFORMING LOANS RELATED ISSUES: INTERVIEWS ANALYSIS

9.1. INTRODUCTION

Earlier chapters provide empirical analysis and, hence, evidence for the various aspects of non-performing loans in the case of Libya by utilising primary data collected through a questionnaire schedule. This chapter extends the analysis to provide analysis of the qualitative and primary data collected through interview schedule to substantiate evidence derived from quantitative analysis.

This chapter, therefore, provides a qualitative analysis of the interview questions regarding the types of loans that have led to non-performing loans, reasons which caused the emergence of this problem and the ways to remedy them. It should be noted that the interview questions consist of three sections, each section contains a number of questions. Accordingly, the first section aims to reveal the perception and opinions of the participants regarding the types of loans that have led to the emergence of non-performing loans in the Libyan state-owned commercial banks. The second section covers opinions of the participants as to the reasons that caused non-performing loans by focusing on the reasons related to the banks, collaterals, borrowers and the general environment (internal and external conditions). Finally, the third section aims to identify the appropriate ways to deal with non-performing loans through the understandings of the participants.

As stated in chapter 5, semi-structured interviews had been chosen in order to conduct the interviews survey. Moreover, face-to-face and telephone interviews have been used as the techniques in the process of collecting data from the interviewees. It should also be reiterated that five managers of the administration loans chosen for interview as representing each of the Libyan state owned commercial banks, which constitutes the case study of this research.

As can be seen in the following section, data collected through interview analysed by using thematic analysis and coding through which a systematic presentations of the findings was achieved. The analysis of the interview text was conducted manually rather than utilising particular software. The thematic coded information was then analysed through interpretative method.

9.2. PERCEPTIONS ON THE IDENTIFICATION OF NON-PERFORMING LOANS

Table 9.1 shows the types of loans that led to the emergence of non-performing loans in the Libyan state-owned commercial banks according to the opinions and ranking of the interviewees. Accordingly, these types of loans are: (1) Loans and credit facilities granted to individuals, (2) Loans granted to the public institutions, (3) Loans granted to the foreign companies and (4) Loans granted to the nationalised sectors.

Table 9. 1: Results for Question 1 (Overviews of Types of Loans that Caused Non-performing Loans)

Question 1	**Which types of loans caused non-performing loans?**
Focused coding	
1	Loans and credit facilities granted to individuals.
2	Loans granted to the public institutions.
3	Loans granted to foreign companies.
4	Loans granted to the nationalised sectors.
Theme	Non-performing loans relevant to individuals, public institutions, foreign companies and nationalised sectors.

It can be said that most of the interviewees emphasised that the loans granted to the individuals represented a high proportion of non-performing loans which have emerged in the Libyan state-owned commercial banks.

The reasons of non-performing loans were questioned; and the interview texts which reveal the opinions of the individuals are coded, which is presented in table 9.2.

Table 9. 2: Focused Coding Number 1 for Question 1 (Sources of Non-performing Loans)

Loans and credit facilities granted to individuals	
Interviewee 1	Granted as a result of the state policy.
Interviewee 2	Lack of the financial feasibility studies.
Interviewee 3	Using personal relationship + Incorrect information provided by the borrowers.
Interviewee 4	Weakness of the collaterals.
Interviewee 5	Lack of the financial feasibility studies + Using individual relationship.

According to all the interviewees as can be seen in table 9.2, the reasons that led to the faltering of some individual loans are: (1) These types of loans had been granted as a result of the state policy in terms of providing houses for citizens and broadening the base of ownership that led to grant a large number of loans without adequate guarantees which led to difficulty to follow-up these loans, (2) There is weakness in the feasibility studies which have been submitted by some of the loan applicants, (3) Using personal relationship in the process of granting loans, and (4) The weakness of some guarantees which have been provided by some borrowers.

Table 9. 3: Focused Coding Number 2 for Question 1 (Loans Granted to Public Institutions as a Source of Non-performing Loans)

Loans granted to the public institutions	
Interviewee 1	Granted as a result of the state decisions.
Interviewee 2	Does not have enough collateral + Nationalisation of some projects.
Interviewee 3	Nationalisation of some projects.
Interviewee 4	The absence of strong legislation.
Interviewee 5	Granted as a result of state policy + The absence of strong legislation.

Table 9.3 shows the views of the interviewees on the loans granted to the public institutions. Accordingly, the interviewees confirmed that this type of loan is one of the major sources of the emergence of non-performing loans in Libyan state-owned commercial banking sector. Furthermore, as can be seen in table 9.3., the interviewees identified a number of reasons which have led to the appearance of non-performing loans in the Libyan state-owned commercial banks. These reasons are:

(1) Majority of these loans have been granted as a result of the State's decisions, (2) Most of these loans have been granted without sufficient collateral, (3) State's decisions on the nationalisation of some projects and hence funds required for financing of nationalisation, and (4) The absence of the legislation relevant to the protection of lenders' funds.

Table 9.4 presents the coding of the interviewees perception on loans given to the foreign companies being an important sources of non-performing loans.

Table 9. 4: Focused Coding Number 3 for Question 1 (Overviews of Types of Loans that Caused Non-performing Loans)

Loans granted to the foreign companies	
Interviewee 1	No
Interviewee 2	No
Interviewee 3	No
Interviewee 4	No
Interviewee 5	No

According to table 9.4, it is clear that the interviewees disagree that this type of loan had caused the emergence of non-performing loans in the Libyan state-owned commercial banks, due to: (1) The presence of only a small number of foreign companies operating in Libya, and (2) Inadequate legislation that allows banks to grant loans to the foreign companies.

As discussed in Chapter 4, it could be said that the problem of the loans granted to the nationalised sectors had coincided with the issuance of Law No. 153 of 1970. However, loans granted to the nationalised sectors could be one of the reasons of non-performing loans, and therefore interviews were asked to comment on this, and the coding of their responses are presented in table 9.5.

Table 9. 5: Focused Coding Number 4 for Question 1 (Overviews of Types of Loans that Caused Non-performing Loans)

Loans granted to the nationalized sectors	
Interviewee 1	The absence of the original owners of the nationalized companies + Non-recognition of the original owners + Non-recognition of the new owners.
Interviewee 2	The weakness of legislation to follow-up this type of loan.
Interviewee 3	Bad management of the nationalized projects.
Interviewee 4	Non-recognition of the new owners + Bad management of the nationalized projects.
Interviewee 5	Most of these loans granted by personal guarantees + Weakness of legislation to follow-up these types of loans.

As can be seen in Table 9.5, the interviewees' perceptions about the reasons that led to the default of loans which have been granted to the nationalized sectors can be listed as:

(1) The absence of the original owners of the nationalized companies, because most of those companies were owned by foreigners,

(2) Non-recognition of the borrowers on the loans that were lent to the projects which have been nationalized,

(3) Non-recognition of the new owners of the nationalized projects regarding the old loans,

(4) The weakness of the legislation related to the process to follow-up the loans which have been granted to the nationalized firms,

(5) Bad management of some of the nationalized projects, and

(6) The absence of real guarantees, because most of the loans granted to the nationalized companies had been granted by personal guarantees.

9.3. THE MAIN REASONS FOR THE EMERGENCE OF NON-PERFORMING LOANS

According to chapter 2, it could be noted that there are several reasons which may lead to the emergence of non-performing loans. This was explored with the interviewees as well, and the coded results are presented in table 9.6.

Table 9. 6: Results for Question 2 (Overviews of the Reasons that Led to Non-Performing Loans)

Question 2	**What are the reasons which have led to the emergence of non-performing loans?**
Focused coding	
1	Bank-related reasons.
2	Collateral-related reasons.
3	Borrower-related reasons.
4	Local conditions-related reasons (internal).
5	International conditions-related reasons (external).
Theme	Banks, collateral, clients and internal and external conditions.

Table 9.6 shows a number of reasons that had been presented in the interviews in order to identify the main obstacles which caused non-performing loans in the Libyan state-owned commercial banks. According to the expressed views, these reasons are: (1) Bank-related reasons, (2) Collateral-related reasons, (3) Borrower-related reasons, (4) Local conditions-related reasons, and (5) International conditions-related reasons.

Table 9. 7: Focused Coding Number 1 for Question 2 (Overviews of Reasons that Led To Non-Performing Loans)

The reasons which related to the banks	
Interviewee 1	The weakness in the use of financial analysis methods + Granting loans and credit facilities to non-matching economic activity.
Interviewee 2	The weakness in the study of the customer file + Granting loans by using personal relationship.
Interviewee 3	The weakness in the study of the customer file + Shortcomings in the follow-up of the loans + The weakness in terms of conducting sufficient studies on the client's previous activities.
Interviewee 4	Granting loans by using personal relationship + Lack of clear and written loan policy.
Interviewee 5	The absence of a database in order circulate information + Granting loans by using personal relationship

Table 9.7 shows the views of the interviewees on the reasons related to the banks, as the source of the emergence of non-performing loans in the Libyan state-owned

commercial banks. Therefore, the interviewees mentioned that there are a number of reasons relevant to the banks, which are considered as the basic causes for the emergence of non-performing loans in the Libyan state-owned commercial banks. Accordingly, these reasons are:

(1) There was a weakness in terms of use the method of financial analysis in order to the early detection of non-performing loans,

(2) Granting loans and credit facilities to non-matching economic activities,

(3) There was weakness regarding the study of the clients' files,

(4) Personal relations play a prominent role in the process of granting loans in Libya, which led to the granting of a large percentage of loans without adherence to the terms of lending,

(5) Shortcomings in the follow-up of loans, which mostly resulted from the types of loans or the weakness of the legislation specialised in the process of follow-up of the granted loans,

(6) There was weakness in terms of lending policies, and

(7) The absence of a modern database in order to sharing the information between banks, which is related to the banks' clients.

Table 9. 8: Focused Coding Number 2 for Question 2 (Overviews of Reasons that Led To Non-Performing Loans)

The reasons which related to the collaterals	
Interviewee 1	The shortfall in the value of some collateral with the passage of times + Overestimation of the collateral.
Interviewee 2	Difficulty to convert some type of collateral into liquidity + The shortfall in the value of some collateral with the passage of time.
Interviewee 3	Overestimation of the collateral + The shortfall in the value of some collateral with the passage of time + Insufficient documents supporting the ownership of the collateral.
Interviewee 4	Difficulty to convert some type of collateral into liquidity + Overestimation of the collateral.
Interviewee 5	Difficulty to convert some type of collaterals into liquidity

Table 9.8 shows the reasons that led to the emergence of non-performing loans, which are related to the collateral (guarantees). According to the views of the interviewees,

there are a number of negatives relevant to the collateral provided by the borrowers that caused the emergence of the problem of non-performing loans in the Libyan state-owned commercial banks. The reasons which are expressed by the interviewees are:

(1) Some of the collaterals had been exposed to decline in their value with the passage of time, making it unable to cover the full amount of the loan;

(2) The exaggeration in the assessment of the real value of the collateral, which make the lenders unable to meet the full value of the loans in the event of the borrower failing to repay their obligations;

(3) Inadequate supporting documents of collateral ownership which had been provided by the borrowers in order to obtain loans, and

(4) Difficulty to convert some types of collateral to liquidity, which had led to difficulty to recover the value of some loans by the lenders (banks).

Interviewees were also asked to express their views on reasons related to borrowers leading to non performing loans, and the coded results are presented in table 9.9:

Table 9. 9: Focused Coding Number 3 for Question 2 (Overviews of Reasons that Led To Non-Performing Loans)

The reasons which related to the borrowers	
Interviewee 1	Providing incorrect information + Low level of financial feasibility studies + Client bankruptcy and the absence of sufficient guarantees for the recovery of the value of loan granted.
Interviewee 2	Providing incorrect information + The failure of the heirs to repay the borrower's obligations + Client bankruptcy and the absence of sufficient guarantees for the recovery of the value of loan granted.
Interviewee 3	Providing incorrect information + The low level of experience of the clients in terms of managing their projects + Use the amount of loans for other purposes.
Interviewee 4	Use the amount of loans for other purposes + Low level of financial feasibility studies + Client bankruptcy and the absence of sufficient guarantees for the recovery of the value of loan granted.
Interviewee 5	Providing incorrect information + Client bankruptcy and the absence of sufficient guarantees for the recovery of the value of loan granted

Based on the coded interview text presented in Table 9.9, it can be noted that the clients of the Libyan state-owned commercial banks are considered as one of the parties responsible for the emergence of non-performing loans. According to the views expressed by the interviewees, there are a number of reasons related to the borrowers that had caused non-performing loans. These are:

(1) Some borrowers have provided incorrect information on the projects, which were funded by loans;

(2) Low level of financial feasibility studies provided by the borrowers;

(3) The low level of administrative, financial and technical experience of the borrowers in order to manage the borrowed funds;

(4) Some borrowers have been using the amount of loans for other purposes;

(5) The failure of some heirs to repay the borrower's obligations, and

(6) Client bankruptcy and the absence of sufficient collateral to recover the loan value.

In accordance with chapter 4, the general environment (local and international conditions) is considered as one of the reasons leading to non-performing loans. These were explored with the interviewees, and the coded results are presented in table 9.10:

Table 9. 10: Focused Coding Number 4 for Question 2 (Overviews of Reasons that Led To Non-Performing Loans)

The reasons which related to local conditions	
Interviewee 1	Nationalisation decisions + Liquidation of some projects financed by loans + The economic changes.
Interviewee 2	The weakness of legislation + Changes of the monetary policy
Interviewee 3	The weakness of legislation + The low level of judicial provisions which related to the recovery of the loans value.
Interviewee 4	The weakness of legislation.
Interviewee 5	The economic changes + Nationalisation decisions

As table 9.10 shows, a number of reasons which relates to the local (internal) conditions that caused non-performing loans in the Libyan state-owned commercial banks. Therefore, the views of the interviewees regarding the reasons that led to non-performing loans are:

(1) The issuance of Law No. 153 of 1970 in order to nationalise a number of domestic and foreign companies;

(2) Liquidation of some projects which have been financed by loans;

(3) The economic changes resulting from the change in the interest rate, exchange rate, tax and customs rates;

(4) Weakness of the legislation specialising in the protection of the banks in order to recover their funds in the event of defaulting borrowers to repay their obligations;

(5) Changes of the monetary policy, and

(6) The low level of judicial provisions related to the recovery of the amounts of loans.

Table 9. 11: Focused Coding Number 5 for Question 2 (Overviews of Reasons that Led To Non-Performing Loans)

The reasons which related to the international conditions	
Interviewee 1	The impact of the international sanctions
Interviewee 2	The impact of the embargo
Interviewee 3	No
Interviewee 4	No
Interviewee 5	The impact of embargo

Table 9.11 depicts the international (external) conditions that led to the emergence of non-performing loans, as expressed by the interviewees. Thus, it can be said that the interviewees do not consider external conditions as a major reasons of non-performing loans. Accordingly, the interviewee 1, interviewee 2 and interviewee 5 mentioned that the international sanctions imposed on Libya (such as the impact of the embargo which led to the difficulty of import raw materials for many of the projects and the freezing of the Libyan funds in the foreign banks) had caused the emergence of non-performing loans in the Libyan state-owned commercial banks. On the other hand, interviewee 3 and interviewee 4 had mentioned that there is no negative impact on the Libyan state-owned commercial banks regarding the international conditions (external factors).

9.4. APPROPRIATE WAYS TO TREAT NON-PERFORMING LOANS

According to chapter 3, there are a number of ways which may be used to solve non-performing loans. This sections aim at exploring the opinions of the interviewees regarding the potential ways of overcoming the non-performing loans.

Table 9. 12: Results for Question 3 (Overviews of the Appropriate Ways to Deal with Non-Performing Loans)

Question 3	**What are the appropriate ways to deal with non-performing loans?**
Focused coding	
1	Client support.
2	The establishment of an institution specialising in buying non-performing loans.
3	Liquidation of the non-performing projects.
Theme	Client support, establishment of a special institution and liquidation of non-performing projects.

Table 9.12 depicts a number of points raised in order to identify appropriate ways to deal with non-performing loans that have emerged in the Libyan state-owned commercial banks. These are: (1) Client support, (2) Establishment of a new institution specialising in buying non-performing loans, and (3) Resorting to liquidate non-performing projects.

Table 9. 13: Focused Coding Number 1 for Question 3 (Overviews of the Appropriate Ways to Deal with Non-Performing Loans-Client Support)

Client support	
Interviewee 1	Additional cash injection.
Interviewee 2	Debt rescheduling + Cancellation of the accrued interest + Additional cash injection.
Interviewee 3	Cancellation of the accrued interest + Providing financial and marketing consultations + Debt rescheduling.
Interviewee 4	Reduction of the interest rates on loans.
Interviewee 5	Reduction of the interest rates on loans + Providing financial and marketing consultations.

Table 9.13 shows the views of the interviewees regarding support of the defaulters' clients as an appropriate way to deal with non-performing loans that emerged in the Libyan state-owned commercial banks. Thus, the interviewees identified a number of means related to the method of client support which can be used to overcome the client related non-performing loans, which are:

(1) Inject additional cash to the defaulters' clients in order to revive the non-performing projects;

(2) Rescheduling of non-performing loans;

(3) Cancellation of part or all of the accrued interest;

(4) Provide the financial and marketing consultations to the defaulters' clients; and

(5) Reduction of the interest rates relevant to non-performing loans.

Table 9. 14: Focused Coding Number 2 for Question 3 (Overviews of the Appropriate Ways to Deal with Non-Performing Loans)

The establishment of an institution specialising in buying non-performing loans	
Interviewee 1	Yes
Interviewee 2	Yes
Interviewee 3	Yes
Interviewee 4	Yes
Interviewee 5	Yes

Table 9.14 shows the views of the interviewees regarding establishing a new institution specialising in buying non-performing loans that emerged in the Libyan state-owned commercial banks. As can be seen, all of the interviewees agree with the creation of this kind of institution by taking into account a number of conditions, which are as follows:

(1) In the case of the failure of the other methods in order to solve non-performing loans;

(2) Support this type of institution by powerful legislation to enable them to carry out their tasks properly, and

(3) Support this type of institution by sufficient capital.

Table 9. 15: Focused Coding Number 3 for Question 3 (Overviews of the Appropriate Ways to Deal with Non-Performing Loans)

Liquidation of non-performing projects	
Interviewee 1	Just in the event of client's bankruptcy.
Interviewee 2	In the failure of the other methods to solve NPLs.
Interviewee 3	In the failure of the other methods to solve NPLs.
Interviewee 4	No
Interviewee 5	Just in the event of client's bankruptcy.

Table 9.15 shows the opinions of the interviewees concerning liquidating non-performing loans that have emerged in the Libyan state-owned commercial banks. Consequently, it can be seen that interviewee 1 and interviewee 5 argued that the liquidation method can be used only in the event of customer bankruptcy. On the other hand, interviewee 2 and interviewee 3 mentioned that this method is considered as the last resort in the case of the failure of the other methods to solve non-performing loans. Ultimately, it can be noted that interviewee 4 has rejected liquidating non-performing loans that emerged in the Libyan state-owned commercial banks.

9.5. CONCLUSION

Generally, this chapter attempted to know the views of the interviewees to identify; the types of loans which have led to the emergence of non-performing loans in the Libyan state-owned commercial banks, reasons that have led to this problem and the appropriate ways to deal with non-performing loans.

Based on the views of the interviewees, it can be concluded that the loans which have led to non-performing loans are those loans which have been granted to individuals, public institutions and nationalised sectors. In addition, this chapter shows the views of the interviewees about the reasons, which have led to the emergence of non-performing loans. Accordingly, the interviewees have argued that the reasons that led to non-performing loans are: reasons related to the banks, collateral, borrowers and the general environment (internal and external conditions).

Ultimately, this chapter has mentioned the views of the interviewees to identify the appropriate methods which may be used to treat non-performing loans that have emerged in the Libyan state-owned commercial banks. As discussed in the previous section, interviewees mentioned that the following appropriate ways to solve non-performing loans that emerged in the Libyan state-owned commercial banks are: client support, the establishment of an institution specialising in buying non-performing loans and liquidation of the non-performing projects. In contrast to the results in the questionnaire section, as can be seen, interviewees are in favour of the establishment of a specialised institution buying non-performing loans.

Chapter 10

CONCLUSION AND RECOMMENDATIONS

10.1. INTRODUCTION

This study aimed to investigate the factors leading to non-performing loans in the Libyan state-owned commercial banking. To fulfil this aim, an attempt was made to explore the opinions and views of those involved in the Libyan commercial banking, which have been obtained by conducting the questionnaire and interview surveys. Therefore, the findings of this study are three fold: firstly, identifying the types of loans, which became non-performing loans in the Libyan state-owned commercial banks; secondly, considering the reasons that led to the emergence of non-performing loans, and lastly, locating the ways which may be used to treat non-performing loans.

10.2. TYPES OF LOANS LEADING TO NON-PERFORMING LOANS IN LIBYAN STATE-OWNED COMMERCIAL BANKS

As discussed in Chapter Two, there are several types of loans, which vary in terms of duration, purpose and between secured and unsecured loans. Therefore, the empirical Chapters attempted to identify those kinds of loans which led to the emergence of non-performing loans in the Libyan state-owned commercial banks. Consequently, the results obtained from the empirical Chapters are as follows:

10.2.1. Loans and Credit Facilities Granted to Individuals

As the analysis in Chapter six demonstrates, most of the participants agree that loans and credit facilities granted to individuals have led to the emergence of non-performing loans in Libyan state-owned commercial banks. Additionally, Chapter nine shows that loans and credit facilities granted to individuals are considered the main reason for the emergence of non-performing loans.

It can be concluded from the analysis and these results that the reasons behind the inability of the Libyan state-owned commercial banks to recover their funds granted to individuals are as follows:

(i) As a result of the state's policies to provide adequate housing for the citizens, and to broaden the base of ownership, most of the loans to individuals were granted without requiring sufficient collateral;
(ii) Weakness in some of the feasibility studies submitted by the borrowers;
(iii) Intervention of the personal relationship into the process of making lending decisions.

It can be seen that these factors are related to the external environment which imposes unprofessional practices and political choices on the state-owned commercial banks, which results in non-performing loans.

10.2.2. Loans Granted to Public Institutions

Chapter four states that Libyan state-owned commercial banks have granted loans and credit facilities to public institutions. Chapter six shows that there is a high proportion of respondents who agree that the loans granted to public institutions have a significant impact in terms of the emergence of non-performing loans in Libyan state-owned commercial banks. Furthermore, it is shown that loans granted to public institutions are ranked as the second most influential source of the loans that led to the emergence of non-performing loans in the Libyan state-owned commercial banks.

Additionally, by referring to the discussion in Chapter nine, it can be concluded that there are a number of reasons that led to the emergence of non-performing loans in the Libyan state-owned commercial banks, related to the loans and credit facilities granted to the public institutions. These reasons are as follows:
(i) Majority of those loans were granted as a result of the state's decisions in order to finance the development plans of the state;
(ii) Libyan state-owned commercial banks have granted loans and credit facilities to the public institutions without sufficient collateral;
(iii) As a result of the nationalisation decisions, the ownership of the nationalised projects was transferred to new owners. Accordingly, non-performing loans emerged through the non-recognition of the new owners of the previous obligations of these projects.
(iv) The weakness of legislation related to the process of protecting the banks' money granted to public institutions in the form of loans and credit facilities.

Therefore, it can be concluded that most of the factors mentioned above, which related to loans granted to public institutions, emerged as a result of the State's policies or/and the intervention of personal relationships in the process of granting loans.

10.2.3. Loans Granted to Foreign Companies

Regarding the results mentioned in Chapter six, the majority of respondents did not believe that loans granted to foreign companies caused non-performing loans in the Libyan state-owned commercial banks. In addition, as Chapter nine demonstrates, the interviewees do not believe that the loans granted to foreign companies caused non-performing loans in the Libyan state-owned commercial banks. Accordingly, the reasons behind the absence of a negative effect of the loans granted to the foreign companies on the Libyan state-owned commercial banking sector can be summarised as follows:

(i) Only a small number of foreign companies were operating in the Libyan market as a result of the lacklustre investment atmosphere.

(ii) The ownership of the foreign companies was transferred to Libyan owners as a result of the Libyanaisation and nationalization decisions.

Thus, it is clear that the previous decisions which are in the form of nationalisation and Libyanaisation of foreign companies on the one hand, and the absence of sufficient investment atmosphere on the other led to the reluctance of foreign companies to invest in the Libyan market.

10.2.4. Loans Granted to the Nationalised Sectors

Chapter six demonstrates that the respondents agree that Libyan state-owned commercial banks have been exposed to non-performing loans due to the failure of these banks to recover the value of loans and credit facilities granted to the nationalised sectors. In addition, it shows that loans granted to the nationalised sectors are ranked third in terms of types of loans that caused non-performing loans in the Libyan state-owned commercial banks.

In addition to Chapter nine, it can be concluded that the followings should be considered as the reasons for non-performing loans in the Libyan state-owned commercial banks related to the loans and credit facilities granted to the nationalised sectors:

(i) The absence of the original owners of the nationalised sectors;

(ii) The new owners of the nationalised sectors have not recognised the previous obligations of loans and credit facilities;

(iii) Difficulty to enforce the loans granted to the nationalised sectors due to the insufficiency of legislation;

(vi) The poor management of some nationalised sectors by the new owners;

(v) The absence of sufficient collateral, because most of the loans granted to the nationalised sectors were made based on personal collateral.

10.3. REASONS OF NON-PERFORMING LOANS IN LIBYAN STATE-OWNED COMMERCIAL BANKS

In general, Chapter two shows the reasons behind the emergence of non-performing loans as explained in the literature. In addition, Chapter seven presents the respondents' opinions related to the reasons that led to the emergence of non-performing loans in the Libyan state-owned commercial banks. Furthermore, Chapter nine shows the interviewees' views regarding the reasons for the non-performing loans in the Libyan state-owned commercial banks. These reasons are consolidated in the following section:

10.3.1. Reasons Related to the Bank (Lender)

a. The lack of a clear, written loan policy

According to Chapter seven, the respondents agreed that there is an absence of a clear written loan policy followed by the Libyan state-owned commercial banks. As a result, the weakness of the written loan policy caused the emergence of non-performing loans. According to Chapter nine, the reasons that led to the absence of such a loan policy are:

(i) Restrictions on commercial banks in the process of creating and developing their own credit policy.

(ii) Conflict of some banks' policies with the state's policies regarding the granting of loans.

b. The overlap between the function of the lending department and the follow-up department

Chapter Seven shows that the respondents were neutral on the issue of whether there is an overlap between the tasks of the lending and the follow-up departments. On the other hand, Chapter nine shows that the interviewees ruled out the overlap between both tasks.

c. The weakness in the use of financial analysis methods for the early detection of non- performing loans

Chapter Seven shows respondents' opinions on whether there is a weakness related to using the analysis technique for the early detection of non-performing loans. The participants agreed that Libyan state-owned commercial banks were exposed to the problem of non-performing loans due to the weakness in the use of financial analysis methods. In addition, according to Chapter nine, the interviewees mentioned that the weakness of using the financial analyses method is considered one of the reasons behind the emergence of non-performing loans in the Libyan state-owned commercial banks. As a result, the reasons for the weakness of Libyan state-owned commercial banks in the use of financial analyses methods can be summarised as:

(i) The insufficient number of experts in the process of financial analysis.
(ii) The absence of modern technology use in the process of financial analysis.

d. Lack of adequate attention devoted to the investigation of the loan applications submitted by clients

Chapter Seven shows that the respondents agreed that the Libyan state-owned commercial banks were exposed to non-performing loans due to the lack of the adequate studies on the clients' files. In addition, Chapter Nine, concludes that the emergence of non-performing loans in the Libyan state-owned commercial banking sector relating to the lack of adequate attention given to the process of investigating the loans applications are due to:

(i) The absence of a modern database specialising in the collection of credit data.

(ii) The absence of the right person in the right place within the process of granting loans.

(iii) Using personal relationships in the process of granting loans.

(iv) Granting loans and credit facilities based on the instructions issued by the supreme bodies of the state.

e. Granting a large proportion of loans and credit facilities to a small number of borrowers

According to Chapter seven, the respondents were neutral on the issue of whether the Libyan state-owned commercial banks granted a large proportion of loans and credit facilities to a small number of clients. On the other hand, as shown in Chapter Nine, interviewees stated that the loans granted by the Libyan banks are distributed to all sectors.

It can, therefore, be argued that granting loans and credit facilities based on the instructions issued by the supreme bodies of the state and using personal relationships might lead to grants of a large proportion of loans to a small number of clients, and therefore, causation of non-performing loans.

f. The allocation of a large portion of loans and credit facilities to a non-matching economic activity

Chapter Seven shows that the respondents are divided between 'neutral' and 'agree' responses on the issue of whether Libyan state-owned commercial banks are exposed to non-performing loans due to loans being granted to non-matching economic activities. In addition to the analysis presented in Chapter Nine, it can be suggested that there are a number of reasons which caused non-performing loans, related to the large portion of loans being granted to non-matching economic activities, distributed by the Libyan state-owned commercial banks. These reasons are:

(i) Granting loans based on general state policies rather than the realities of the banks;

(ii) Granting loans based on personal relationships, implying nepotisms and patronage;

(iii) Weakness in the economic feasibility studies submitted by customers.

g. Granting additional funding to the borrower without conducting sufficient studies on the results of the client's previous activities

According to Chapter Seven, respondents agreed that Libyan state-owned commercial banks granted additional money to their clients without conducting sufficient studies on the borrowers' previous activities. In addition, Chapter Nine showed that Libyan state-owned commercial banks have not conducted adequate studies on the clients' previous activities.

As a result, it can be concluded that non-performing loans emerged in Libyan state-owned commercial banks due to the following reasons:

(i) Granting additional money based on the instructions issued by the supreme bodies of the state.

(ii) Granting additional funds based on personal relationships.

h. Allowing the borrower to use the loan amount before completing the loan file with the required documents

As shown in Chapter Seven, the participants agreed that Libyan state-owned commercial banks allow some of their clients to take advantage of the loans before completing the required documents. In contrast, Chapter Nine identifies that Libyan state-owned commercial banks do not allow the borrowers to withdraw the amount of loan before the completion of the required documents.

It can be concluded that this is due to the exploitation of personal relationships and the government instruction in the process of granting loans, non-performing loans might emerge in the Libyan state-owned commercial banks by allowing borrowers to use the loans before completing their loan files.

i. Allowing the borrower to withdraw the full amount of the loan at once

Chapter Seven shows that the participants chose the criteria of 'neutral' and 'agreed' responses with regards to Libyan state-owned commercial banks allowing their clients to withdraw the full amount of the loan at once. On the contrary, according to Chapter nine, the interviewees have mentioned that the Libyan state-owned commercial banks do not allow their customers to withdraw the full amount of the loans at once.

As mentioned in the previous point, it can be concluded that as a result of using personal relationships and government instructions, borrowers might withdraw the full amount of loans at once, which would lead to the emergence of non-performing loans in the Libyan state-owned commercial banking sector, as in such cases credit facilities cannot review the progress of the project.

j. The shortcomings in the follow-up of the loans granted by the follow-up of borrower activity

According to Chapter Seven and Chapter Nine, the respondents and the interviewees agreed that non-performing loans emerged in the Libyan state-owned commercial banks due to the shortcoming in the follow-up procedures of the loans by the follow-up of the borrower activity.

Additionally, it can be concluded that the reasons for the difficulty in following up some loans granted by the Libyan state-owned commercial banks are due to certain client types, such as the state enterprises and some types of economic activities.

k. Using personal relationships in the process of granting loans

Both the respondents and the interviewees agreed that Libyan state-owned commercial banks were exposed to the problem of non-performing loans by using personal relationships in the process of granting loans.

Accordingly, it can be concluded that social relationships in terms of nepotisms and patronage play an important role in Libyan society. In addition, it can be noted that using personal relationships in the process of granting loans and credit facilities is considered as one of the main reasons which led to the emergence of non-performing loans in the Libyan state-owned commercial banks.

l. Weakness of control over credit management

According to Chapter Seven, the respondents agree that non-performing loans emerged in Libyan state-owned commercial banks due to the weakness of control over credit management. However, Chapter Nine shows that the interviewees disagree on the issue of whether there is a weakness in the control over credit management.

Additionally, it can be noted that non-performing loans that emerged in the Libyan state-owned commercial banks might be as a result of:
(i) The inability to choose the right person for the right place,
(ii) The weakness of using clear and written loan polices.

10.3.2. Reasons Related to Collaterals (Securities)

a. Overestimation of the collateral value

Chapter Seven mentioned that the respondents agreed that the clients of the Libyan state-owned commercial banks provided collateral with unrealistic valuations. Moreover, Chapter Nine shows that the interviewees have mentioned that the borrowers had exaggerated the real value of their collateral provided to the Libyan state-owned commercial banks.

It can, therefore, be concluded that Libyan state-owned commercial banks are exposed to non-performing loans due to their inability to collect the full value of loans, because of their acceptance of unrealistic valuation of the collateral. Accordingly, the reasons behind the overestimating of the collateral values are:
(i) Lack of committees specialised in assessing the collateral provided by clients.
(ii) Using personal relationships in the process of accepting collateral.

b. Difficulty in converting some types of collateral into liquidity

According to Chapter Seven and Chapter Nine, the respondents and the interviewees agreed that the problem of non-performing loans emerged in the Libyan state-owned commercial banks due to the difficulty of liquidating some types of collateral. Thus, it can be concluded that the instability of the Libyan market led to the instability of most collaterals' prices.

c. Some types of guarantees are subject to the shortfall in their value with the passage of time, and hence fail to meet the value of the initial credit

Respondents and interviewees agreed that some types of collaterals' value declined with the passage of time and therefore the new value would not match that of the initial credit. Therefore, Libyan state-owned commercial banks faced the problem of non-performing loans due to the inability of these guarantees to cover the full amount of the loans.

Therefore, it can be concluded that the reasons behind the shortfall of the collateral values with the passage of time in the Libyan economy are:
(i) The fluctuation of the real estate prices, which were used as collateral;
(ii) Some factories have closed down due to low prices of some locally produced goods, therefore decreasing the value of collaterals, which are in the form of machines and buildings.

d. Using the same collateral in order to obtain more than one loan

According to Chapter Seven, the respondents were 'neutral' on the point that the clients of the Libyan state-owned commercial banks used the same collateral in order to obtain more than one loan. On the other hand, according to the interviewees' views presented in Chapter Nine, Libyan state-owned commercial banks did not allow their clients to use the same guarantees to obtain more than one loan.

It can, hence, be concluded that the clients of the Libyan state-owned commercial banks might use the same collateral for more than one loan due to the following reasons:
(i) The absence of a consolidated database of all banks operating in Libya.
(ii) Using personal relationships in the process of granting loans and credit facilities.

e. The disposal by the borrower of the total or partial value of the collateral before the repayment of the loan value

Chapter Seven shows that the respondents were 'neutral' on the issue that Libyan state-owned commercial banks allow their clients to use all or part of the collateral before the repayment of the loan value. However, Chapter Nine shows that the interviewees disagree that the borrowers could use the value of the collateral, either partly or totally before the repayment of their obligations.

In addition, as discussed in Chapter nine, the interviewees pointed out that inadequacy of supporting documents for the collateral's ownership, provided by the clients in order to obtain loans, led to the emergence of non-performing loans in the Libyan state-owned commercial banks.

Consequently, it can be concluded that clients of the Libyan state-owned commercial banks might dispose of the collateral's value for the following reasons:

(i) The weakness in the process of following up the collateral provided by the clients.

(ii) Using personal relationships in the process of obtaining loans and credit facilities.

(iii) The absence of a modern database in order to obtain the necessary information on clients.

10.3.3. Reasons Related to the Borrower (Client)

Chapters Seven and Nine show that respondents and the interviewees agreed that the problem of non-performing loans which emerged in the Libyan state-owned commercial banking sector is also related to the behaviour of the borrowers. Accordingly, it can be concluded that the borrower or client related reasons behind the emergence of non-performing loans are as follows:

a. Providing incorrect information by the borrowers on the project financed by loans.

b. Low level of administrative, financial and technical experience of the borrower in order to manage the borrowed funds.

c. The low level of financial feasibility studies submitted by the borrower.

d. Using the amount of the loan for other purposes.

e. Clients becoming bankrupt and the absence of sufficient collateral to recover the amount of the loan.

f. The failure of the heirs to repay the amount of the loan in the event of the borrower's death.

In addition, it can be concluded that the following reasons are also important:

(i) The lack of credit information exchange between banks.

(ii) Lack of preparation of the feasibility studies by the banks.

(iii) The weakness in the process of follow-up of the loans.

(iv) Lapses in the process of assessing the collateral periodically.

10.3.4. Reasons Related to the General Environment (Internal and External Factors)

10.3.4.1. Internal Factors (Local Conditions)

a. The changes in the monetary policy of the state

According to Chapter Seven, the respondents chose the criteria of 'neutral' and 'agree' when queried whether the problem of non-performing loans emerged in the Libyan state-owned commercial banks due to the changes in Libyan monetary policy. On the other hand, according to Chapter Nine, the interviewees agreed that the changes in Libyan monetary policy caused non-performing loans in the state-owned commercial banking sector. Thus, it can be concluded that changes in the monetary policy of the state, due to the sovereign decisions of its leaders, were of causal relevance.

b. The economic changes resulting from the change in the interest rate, exchange rate, tax and customs rates

Chapter Seven shows that respondents' opinions were split between the criteria of 'neutral' and 'agree', implying that the changes in the Libyan economy also resulted in the emergence of non-performing loans in the Libyan state-owned commercial banks. Furthermore, in Chapter Nine interviewees indicated that the economic changes resulting from the change in the interest rate, exchange rate, tax and customs rates can also be linked to the emergence of non-performing loans in the Libyan state-owned commercial banks.

Consequently, it can be concluded that the increase in the interest rate, exchange rate, tax and customs rates lead to a decline in the net profits of the borrowers, and thus increase the possibility of the emergence of non-performing loans.

c. The government's nationalization decision on some projects financed by loans

In Chapters Seven and Nine, the respondents and interviewees agreed that the Libyan government's decision related to the nationalisation of some projects, especially those which have been financed by credit from the commercial banks also contributed to the emergence of non-performing loans in the Libyan state-owned commercial banks.

In addition, it can be concluded that non-performing loans have emerged in the Libyan state-owned commercial banks due to the nationalisation decision issued by the Libyan government, related to:
(i) The ownership of the nationalised enterprises being transferred to new owners in the private sector.
(ii) Consequently, non-recognition by the new owners of the nationalised companies, of the previous debts.

d. Liquidation of some projects financed by loans

Both the respondents and the interviewees agreed that Libyan state-owned commercial banks were exposed to the problem of non-performing loans due to the liquidation of some projects financed by credit.

Accordingly, it can be concluded that Libyan state-owned commercial banks failed to recover part of their funds, granted as loans to projects because they have been liquidated. The reasons for this are:

(i) Difficulty to follow up those projects because most of them belong to the public sector,
(ii) Most of these projects have been liquidated as a result of their bankruptcy, with insufficient liquidation funds to repay all the loan obligations.
(iii) Weakness in the enforcement of judicial rulings against the projects that have been liquidated in order to recover borrowed funds.

e. The difficulty of collecting loans granted to public sector projects

Chapter Seven shows that respondents agreed that Libyan state-owned commercial banks were exposed to non-performing loans as a result of the difficulty of collecting loans and credit facilities granted to the public sector projects. Similarly, the interviewees mentioned that loans and credit facilities granted to the public sectors caused non-performing loans in the Libyan state-owned commercial banks.

As a result, it can be concluded that the difficulty of collecting funds granted to the public sector is caused by the following:
(i) The difficulty of follow-up for loans granted to the public sector because of the direct subordination to the state.
(ii) The difficulty of enforcement for judgments against the state,
(iii) The weakness in the application of the principle of the right person in the right place in the process of selecting the managers for the public sector projects.

f. The weakness of the control over banks especially with regard to the function of granting loans

According to Chapter Seven, the respondents' opinions varied between the answers of 'neutral' and 'agree', that there is a weakness in the control over the Libyan state-owned commercial banks. However, Chapter Nine presented the views of interviewees who disagreed in that there are weaknesses in the control of the Libyan state-owned commercial banks.

However, it can be concluded that the Central Bank of Libya might fail in controlling the commercial banks due to the political intervention and social relationships. This indeed brings up the issue of central bank independence. However, like any other developing countries, Libyan Central Bank does not have independence in functioning and policies.

g. The low level of judicial provisions relating to the recovery of loans value

Respondents and the interviewees agreed that there is a low level of judicial provisions specialising in loans recovery. Thus, the low level of enforcement of judicial decisions for the recovery of granted loans is also a contributing factor.

Moreover, there is a weakness in the application of legislation for the protection of banks in the event of defaulting borrowers, for the repayment of their obligations. It should be noted that legal evolution and efficiency are essential elements of financial development for economic growth. Thus, Libya suffers from an underdeveloped judicial system which does not contribute to the development and efficiency of the financial system.

10.3.4.2. External Factors (International Conditions)

a. The spill-over impact of the economic and financial crises which erupted in other countries

As explained in Chapter seven, it can be noted that participants' opinions were 'neutral' regarding the impact of financial crises which grew in other counties, in leading to non-performing loans in the Libyan state-owned commercial banks. In addition, Chapter Nine shows that the interviewees point out that those external financial crises do not have a negative impact on the Libyan state-owned commercial banks.

Accordingly, it can be concluded that the main reason why the Libyan state-owned commercial banks are not affected by the financial crises that have occurred in other countries is the lack of a strong connection between the Libyan market and foreign markets. In other words, very low levels of integration with the global economy should account for this, rather than the strength of the Libyan financial system.

b. Impact of international sanctions imposed by the international community on Libya

Chapter Seven shows that the respondents' opinions varied between the 'neutral' and 'agree', with regard to whether the international sanctions caused non-performing loans in the Libyan state-owned commercial banks. On the other hand, the interview results in Chapter Nine indicate that the majority of the interviewees agreed that the international sanctions imposed on Libya, such as the embargo and freezing of Libyan funds in foreign banks, led to the emergence of non-performing loans in the Libyan state-owned commercial banks. In contrast, the rest of the interviewees mentioned that there is no negative impact of international sanctions imposed on the Libyan state-owned commercial banks. It should be pointed out that the participants hesitated in responding to this question due to confidentiality issues and the political nature of the question.

However, it is a fact that international sanctions negatively affected the Libyan economy due to its inability to obtain modern technology and bars to integration with the global economy.

10.4. APPROPRIATE WAYS TO DEAL WITH NON-PERFORMING LOANS IN THE LIBYAN STATE-OWNED COMMERCIAL BANKS

As discussed in Chapter Two, non-performing loans are a nightmare for the lending institutions, in general, and commercial banks in particular. However, there are a number of methods which may used to deal with the problem of non-performing loans. This Chapter (10) shows the opinions and views of both the respondents and interviewees on the methods which might be resorted to by the Libyan state-owned commercial banks in order to resolve the problem of non-performing loans. These methods are in the form of additional client support, establishing an institution specialised in purchasing non-performing loans and liquidating them.

10.4.1. Additional Client Support

a. Flotation (debt rescheduling, waiving part of the accrued interest or reduce the interest rate)

As discussed in Chapter Eight, the respondents' opinions were 'agreed' to treat non-performing loans that occurred in the Libyan state-owned commercial banks by supporting non-performing projects by using the flotation method. This is supported by the interviewers, as shown in Chapter Nine, as the interviewees mentioned that the technique of flotation can be used to deal with non-performing loans which occur in the Libyan state-owned commercial banks.

b. Debt capitalisation or providing financial and marketing consultations

Chapter Eight shows that the participants' opinions were 'agreed' to support the non-performing projects in the form of debt capitalisation or provide financial and marketing consultations. In addition, Chapter Nine shows that supporting the clients who default on their loans by providing financial and marketing consultations was chosen by the interviewees as an appropriate method by which to deal with non-performing loans in the Libyan state-owned commercial banks.

c. Reviving the financed project through additional cash injection

In terms of dealing with non-performing loans, the results in Chapter Eight shows that the respondents were 'neutral' on the issue of whether to revive the non-performing projects that were financed by loans, as a means of supporting defaulters' clients. On the other hand, as discussed in Chapter Nine, the interviewees emphasised the importance of supporting the non-performing clients by injecting additional cash.

Thus, it can be concluded that this is seen as a viable means of addressing non-performing loans so as to ensure the recovery of all money, either through granting of loans and credit facilities or through additional cash Injection.

d. Integration of the non-performing project with other projects

Analysis in Chapter Eight shows that the participants were 'neutral' on the issue of whether to support the clients of the Libyan state-owned commercial banks through integrating the non-performing projects with other successful projects, as a method to remedy non-performing loans. Furthermore, Chapter Nine reveals that the interviewees did not agree to integrate the non-performing projects financed by loans with other successful projects. Thus, views revealed in questionnaires and interviews converge against the integration of non-performing projects with others.

e. Writing-off the non-performing loans

As the discussion in Chapter Eight demonstrates, the respondents' opinions were to 'disagree' with support of non-performing projects by writing-off the non-performing loans. This is corroborated by the fact that interviewees are also opposed to the write-off of non-performing loans. Therefore, the interviewees had mentioned that this method may lead to financial losses for the Libyan state-owned commercial banks. Hence, there is a convergence of opinions on this matter between the two groups of respondents.

For purposes of client support, it can be concluded that this method can be used in order to address non-performing loans that have emerged in the Libyan state-owned commercial banks, after confirming the following:

(i) The dedication of the client to continue working on the non-performing project.

(ii) The confirmation of the possibility of addressing non-performing loans by using one of the aforementioned methods for supporting non-performing projects.

(iii) Non-use of personal relationships in the process of making the decision regarding whether to support non-performing projects.

10.4.2. Establishment of an Institution Specialising in the Buying of Non-performing Loans

Chapter 3 shows that some countries initiated the establishment of new institutions specialising in the purchase of non-performing loans. Regarding Chapter Eight, the respondents' opinions were 'agree' and 'neutral' with regard to the set up of such institutions in order to treat the non-performing loans which emerged in the Libyan state-owned commercial banking sector. Furthermore, Chapter Nine shows that the interviewees are in favour of such an initiative.

It can, therefore, be concluded that the Libyan state should support the establishment of such a financial institution with extensive capital and allowing it to create its policies regarding the collection of loans, as both sample of respondents' opinion converged on this issue as well.

10.4.3. Liquidation of the Non-performing Clients

According to the method of liquidating non-performing clients, Chapter Eight shows that the respondents were 'neutral' on the use of this method to remedy non-performing loans in the Libyan state-owned commercial banks. As Chapter Nine shows, the majority of the interviewees also 'agreed' as to liquidating the non-performing clients as a method of addressing non-performing loans in the event of either the failure of the other methods and/or client bankruptcy.

However, there are certain caveats regarding the method of liquidating non-performing clients:
(i) The state has to bear the value of non-performing loans, which emerged as the result of its resolutions on Libyanisation and nationalisation.
(ii) Enhance the role of the judiciary in the enforcement of the legal provisions.

10.5. REFLECTING ON THE FINDINGS

The results of this research are presented in the preceding sections. It is important to re-evaluate these findings within the context of the literature available, as Chapter 3 presents a number of case studies relating to the study of non-performing loans in other countries. It is therefore useful to locate the results of this study within the findings of such studies presented in Chapter 3.

A comparison of the findings of this study with the case studies presented in Chapter 3 shows that there is a similarity in the factors leading to the emergence of non-performing loans. These factors are in the form of client-related reasons, bank-related reasons and external environment-related reasons. For example, among others, in the case of Korea, Kwon and Nam (1999) find that the emergence of non-performing loans is related to borrowers, banks and the internal reasons. Nagm (2005) and Chlch (2002) also mention that the reasons behind the emergence of non-performing loans in the Egyptian banking sector were related to the same reasons. This study established the same results as those found by Kwon and Nam (1999) and Nagm (2005) and Chlch (2002).

On the other hand, with regard to the methods of dealing with non-performing loans, this study found a number of techniques which can be used to address such loans. Therefore, it can be seen that the majority of methods which have been selected to resolve the non-performing loans in the Libyan state-owned commercial banks are similar to the methods utilised by other countries, as indicated in the case studies presented in Chapter 3. In addition, it can be noted that most of the case studies presented in Chapter 3 also recommend the establishment of new institutions specialising in purchasing non-performing loans, to overcome the burden of non-performing loans. For example, Herrand and Miyazaki (1999), Kwon and Nam (1999), Bonin and Huang (2001), Fofack (2005) and Basu (2003) recommended the establishment of specialised institutions in buying non-performing loans. In addition, Herrand and Miyazaki (1999), Kwon and Nam (1999), Nagm (2005) and Chlch (2002) mention other techniques, in the form of client support. Therefore, it can be concluded that support for clients and the establishment of an institution specialising in purchasing of non-performing loans is the most appropriate methods to address non-performing loans in the Libyan state-owned commercial banks, which is a recommendation supported by other studies also.

It can, thus, be concluded that the findings of this study are in line and congruent with the findings of similar studies in various cases, as discussed in Chapter 3 and above. This provides a verification and substantiation of the findings within this study.

10.6. REFLECTING ON THE FINDINGS THROUGH THEORETICAL FRAMEWORKS

In Chapter Two an attempt was made to review the potential theoretical frameworks, mainly developed in microeconomics with the objective of relating them to non-performing loans due to the similarities between market exchanges and financial transaction and credit granting. As mentioned, asymmetric information remains at the heart of the issue, implying the use of information and using the power of having information. Two further theoretical frameworks developed out of this: moral hazard and adverse selection, which are described and explained in Chapter 2.

As mentioned in Chapter Two, this study does not intend to test the presence of these theoretical frameworks in the Libyan non-performing loans. However, reflecting on the results by locating them in these theoretical frameworks can be a useful exercise in developing our understanding of the issue.

In contextualising the findings within these theoretical frameworks it can be suggested that some of the findings of this study directly indicates the presence of asymmetric information with moral hazard and adverse selection results. According to the empirical chapters, it was found that the asymmetric information has a significant impact on the emergence of non-performing loans in the Libyan state-owned commercial banking sector. It is clear that the perception of the respondents and the interviewees regarding the reasons behind the appearance of non-performing loans in the Libyan state-owned commercial banks indicated that there were moral hazard and adverse selection problems. Therefore, Chapter 7 and Chapter 9 demonstrate a number of reasons behind the emergence of non-performing loans in the Libyan state-owned commercial banking system, which are related to asymmetric information (adverse selection and moral hazard).

10.6. 1. Adverse Selection Related Reasons

i. Lack of adequate attention given to the investigation of the customer file.
ii. Granting additional funding to the borrower without conducting sufficient studies on the results of the client's previous activities.
iii. Overestimation of the collateral value.

10.6. 2. Moral Hazard Related Reasons

i. Insufficient documents supporting the ownership of collateral submitted by the borrower.
ii. Provision of incorrect information by the borrower on the project which will be financed by loans.
iii. The low level of administrative, financial and technical experience of the borrower to manage of funds borrowed.
iv. The low level of financial feasibility studies submitted by the borrower.
v. Use of loans by borrower for other purposes.

10.7. RECOMMENDATIONS

According to the results shown above, this study presents a number of recommendations to avoid non-performing loans in the Libyan state-owned commercial banking sector, which are as follows:

(i) According to Chapter Seven and Chapter Nine, the majority of the respondents and interviewees mentioned that the Libyan state-owned commercial banks have been exposed to non-performing loans due to utilisation personal relationships in financial transactions. Therefore, following the principle of the right person in the right position, for the process of selecting the credit departments' staff could be prevent the emergence of non-performing loans. However, this should also be supported with the development of a robust and transparent credit grading system.

(ii) Chapter Seven and Chapter Nine show that there is an absence of a clear and written loan policy which led to the emergence of non-performing loans in the Libyan state-owned commercial banking sector. For that reason, it is important to critically scrutinise the development of lending policies instituted by the Central Bank of Libya. In addition, Libyan commercial banks should be permitted to set up their own written credit policies, which may lead to avoidance of non-performing loans.

(iii) The perception analysis of the respondents in Chapter Seven and the opinions of the interviewees in Chapter Nine, demonstrate that there is a phenomenon of moral hazard, which lead to non-performing loans in the Libyan state-owned commercial banks. Therefore, ascertaining the authenticity of the information provided by the clients (in particular with regard to the assets submitted as guarantee for loans) and/or the economic feasibility studies on the projects to be financed by loans could be recommended as a tool to prevent non-performing loans in the Libyan state-owned commercial banks.

(iv) Chapter Seven and Chapter Nine show that there is a lack of data and information resulting in the emergence of many problems, including non-performing loans. On the other hand, Chapter Two demonstrates that Hafer (2005) mentioned that by checking the historical information, which are related to the clients it could be possible to minimize the asymmetric information problem. Therefore, the establishment of a modern database to allow the exchange of data and information amongst the financial institutions in general and the banking sector in particular may prevent exposure to non-performing loans.

(v) Creating new investment opportunities (investments diversification), which helps the credit institutions to avoid investing only in granting loans and thus avoid the problem of non-performing loans.

(vi) According to Chapter Seven and Chapter Nine, most of the loans and credit facilities have been granted as a result of the state policy for the socioeconomic development. Therefore, the Libyan state should be held responsible for the loans granted on the basis of its decisions, such as the loans granted to the nationalised and Libyanised projects.

(vii) Chapter Seven and Chapter Nine demonstrated that there are weakness of legislation and low level of judicial provisions related to the recovery of the loans value, which led to the emergence of non-performing loans in the Libyan state-owned commercial banking sector. Therefore, it can be concluded that it should enhance the existing laws and legislation related to the follow-up and recovery of the granted loans and credit facilities, which is essential for an effective financial system.

(viii) Since many studies have shown the success of competent institutions in the purchase of non-performing loans and remedying of the non-performing loans, it is recommended to secure an adequate fund in order to establish such institutions in Libya with the objective of reducing its adverse and significant impact on the economy.

(ix) Liquidating some of the non-performing projects, which have demonstrated the futility of their existence.

(x) Write-off the loans, which have proved to be hopeless for the future.

(xi) Following-up the loans granted to locate non-performing loans earlier than at present.

(xii) Setting up a new department in the Libyan state-owned commercial banks specialising in credit risk management.

(xiii) Paying attention to the process of training and development of the banks' staff in order to improve their skills.

(xiv) In order to prevent the appearance of non-performing loans by minimising asymmetric information, Chapter Two shows that requiring adequate collateral can be utilised to recover the funds granted in advance.

(xv) Periodic evaluation of the collateral provided by borrowers in order to provide a high degree of safety in terms of the recovery of the amount of loans.

(xvi) Releasing credit in instalments rather than the entirety credit paid in the initial period.

(xvii)Providing the necessary data and information to the researchers, to help them to conduct studies to obtain appropriate solutions to the problems which may be faced by the banks.

10.8. LIMITATIONS OF THE STUDY

Research in social sciences is conducted in a controlled manner, which imposes a number of constraints. In addition, conducting research in underdeveloped societies such as Libya can impose further constraints due to the underdeveloped nature of civil society. Therefore, people tend to keep away from the researcher or they participate with reluctance. Furthermore getting permission to conduct research in the form of questionnaire and interviews in societies such as Libya can be challenging.

Importantly, due to secondary data constraints, econometrics types of research could not be considered for this study, as the literature indicates that there are econometric time-series models available that can be used to localise the sources of non-performing loans, such as liner dependent models. Taking into account the lack of data in Libya in such a systematic manner, it was not possible for this study to undertake an econometric study. Such an approach with secondary data would have contributed to our understanding of the sources of non-performing loans in a systematic manner. This would overcome the potential bias inherent to qualitative research based on questionnaires and interviews, which reflect the social attitudes of the participants. In addition, financial analysis by using the ratios identified in Chapter 3 was not possible either due to the shortage of long run data from the banking sector.

10.9. SUGGESTIONS FOR FURTHER STUDIES

As a result of the negative effects of non-performing loans on the Libyan state-owned commercial banking sector, as evidenced in this research, this study proposes a number of further studies in order to conduct a comprehensive survey on the problem. These proposed studies are as follows:

(i) An in-depth study of the reasons that lead clients to evade repaying their obligations.

(ii) An in-depth study of the factors that lead competent authorities to avoid disclosing data and information on non-performing loans.

(iii) An in-depth study on whether there is any relationship between the ownership of banks and non-performing loans.

(iv) Contingent on the availability of secondary data, an econometric time series analysis to locate the sources of non-performing loans, going beyond the opinions of respondents.

(v) A critical analysis of the subject matter through political economy perspective will shed further light onto our understanding of the political and institutional sources of non-performing loans.

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Durham University

School of Government and International Affairs
Institute of Middle East and Islamic Studies
Al-Qasimi Building
Elvet Hill Road, DURHAM DH1 3TU, UK
http://www.durham.ac.uk/sgia

Questionnaire Survey

NON-PERFORMING LOANS IN THE LIBYAN STATE-OWNED COMMERCIAL BANKS

by Aburawi Issa Gabgub

Durham University, United Kingdom

This questionnaire is conducted as part of a research leading to a doctorate degree in banking in Durham University, United Kingdom. The main aim of this study is to identify the causes leading to non-performing loans in the Libyan State-owned Commercial Banks. The study also aims to analyze the ways to deal with such non-performing loans.

You are kindly requested to spare some of your valuable time to complete this questionnaire survey. Please be assured that the information provided in this questionnaire will be treated with extreme confidentiality, and therefore please note that this questionnaire does not ask for your name. Your full cooperation will contribute to the successful completion of the scientific research for which this questionnaire is designed for.
Thank you very much for your valuable time and for your cooperation
Yours Sincerely,

Aburawi Gabgub

Ph.D Candidate, Durham University
Please provide your answer by ticking (✓) the appropriate box

Section 1: Demographic Questions

Position: ....

Age:

☐ Less than 20 ☐ 21-30 ☐ 31-40 ☐ 41-50 ☐ 51-60 ☐ Over 61

Educational Qualification:

☐ BA or BSc ☐ Master ☐ Ph.D. ☐ Other

Experience in the Current Position:

☐ Less than 5 ☐ 10 - 6 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ Over 26

Gender:

☐ Male ☐ Female

Section 2: Which types of loans do you think are causing the problem of non-performing loans?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Loans and credit facilities granted to individuals					
Loans granted to the public institutions					
Loans granted to foreign companies					
Loans granted to the nationalized sectors					

Section 3: In your opinion, what are the reasons leading to the emergence of non-performing loans?

3.1.Bank-related reasons

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The lack of clear and written loan policy					
The overlap between the functions of the lending department and the follow-up department					
The weakness in the use of financial analysis methods for the early detection of non-performing loans					
Lack of adequate attention given to the investigation of the loan applications submitted by clients					
Granting a large proportion of loans and credit facilities to a small number of borrowers					
The allocation of a large portion of loans and credit facilities to non-matching economic activity					
Granting additional funding to the borrower without conducting sufficient studies on the results of the client's previous activities					
Allow the borrower to use the loan amount before completing the loan file with the required documents					
Allowing the borrower to withdraw the full amount of the loan at once					
The shortcomings in the follow-up of the loans granted by the follow-up of the borrower activity					
Using personal relationships in the process of granting loans					
Weakness of control over the credit management					

3.2.The reasons related to the collateral provided by the clients

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Overestimation of the collateral value					
Difficulty in converting some types of collateral into liquidity					
Some types of guarantees are subjected to the shortfall in its value with the passage of time, and hence fails to meet the value of the credit					
The use of the same collateral to obtain more than one loan					
The disposal by the borrower in total or partial value of the collateral before the repayment of the loan value					

3.3.The reasons related to the borrower (client)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Provision of incorrect information by the borrower on the project which will be financed by loans (moral hazard)					
The low level of administrative, financial and technical experience of the borrower to manage the funds borrowed					
The low level of financial feasibility studies submitted by the borrower					
Using the loan for other purposes					
A declaration of the client bankruptcy and the absence of sufficient guarantees for the recovery of the value of loan granted.					
In the event of the client's death and the failure of the heirs to repay his/her obligations					

3.4. The reasons related to the general environment

3.4.1. Local conditions (Internal Factors)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The changes in the monetary policy of the state					
The economic changes resulting from the change in the interest rate, exchange rate, tax and customs rates					

Nationalization decision of government on some projects financed by loans					
Liquidation of some projects financed by loans					
The difficulty of collecting loans granted to public sector projects					
The weakness of the control over banks especially with regard to the function of granting loans					
The weakness of legislation for the protection of banks in the event of defaulting borrowers for the repayment of their obligations					
The low level of provisions judicial relating to the recovery of loans value					

3.4.2. International conditions (External Factors)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The spill-over impact of the economic and financial crises erupted in other countries					
The impact of the international sanctions imposed by the international community on Libya					

Section 4: What are the appropriate ways to deal with non-performing loans?

4.1. Additional client support

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Flotation (debt rescheduling, waive part of the accrued interest or reduce the interest rate)					
Debt capitalized or providing financial and marketing consultations					
Reviving the financed project through additional cash injection					
Integration of the non-performing project with other projects					
Writing-off the non-performing loans					

4.2. Establishment of an institution specializing in the buying of non-performing loans

Strongly Disagree☐ Disagree☐ Neutral☐ Agree☐ Strongly Agree☐

4.3. Liquidation of the non-performing projects

Strongly Disagree☐ Disagree☐ Neutral☐ Agree☐ Strongly Agree☐

4.4.Please kindly state other methods you think appropriate to deal with non-performing loans.

....

....

....

....

Thank you very much for your cooperation.

QUESTIONS FOR THE INTERVIEW SURVEYS

1. Which types of loans do you think are causing the problem of non-performing loans?

1.1. Loans and credit facilities granted to individuals

....
....

1.2. Loans granted to the public institutions

....
....

1.3. Loans granted to foreign companies

....
....

1.4. Loans granted to the nationalized sectors

....
....

1.5. Others

....
....

2. What are the reasons leading to the emergence of non-performing loans?

2.1. Bank-related reasons

....
....

2.2. Collateral-related reasons

....
....

2.3. Borrower-related reasons

....
....

2.4 General environment-related reasons

....
....

2.4.1. Local conditions

....
....

2.4.2. International conditions

....

....

2.5. Others

....

....

3. What are the appropriate ways to deal with non-performing loans?

3.1 Additional client support

....

....

3.2. Establishment of an institution specializing in the buying of non-performing loans

....

....

3.3. Liquidation of the non-performing projects

....

....

3.4. Others

....

....